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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Technical Memorandum 33-507

A Reduced Star Catalog Containing 537 Named Stars

Jack W. Rhoads

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JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

November 15, 1971

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PREFACE

The work described in this report was performed by the Guidance and Control Division of the Jet Propulsion Laboratory, under the cognizance of the Mariner Mars 1971 Project.

Inquiries or comments regarding the material presented in this report should be directed to Jack W. Rhoads.

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ABSTRACT

This document is the first in a series of publications presenting data, compiled by JPL, which is to be included in the JPL Astronautical Star Catalog. Positional and color magnitude data for the 537 named stars, which are to be included in the catalog, are given. A brief translation of the star names and their source language is also presented.

I. INTRODUCTION

The increasing use of celestial instruments aboard unmanned
spacecraft has created the need for a comprehensive collection of celestial data which is in concord with the special requirements of these instruments. These instruments may be concerned with spacecraft attitude control, such as star and planet sensors, or navigational oriented instruments, such as onboard TV cameras. Evaluation of measurements from scientific instruments, such as infra-red and ultra-violet spectrometers, also require knowledge of the stellar background.

In order to meet those specialized requirements of the scientist or engineer associated with or interested in celestial sensing devices, the Jet Propulsion Laboratory (JPL) is compiling celestial and allied data which is to form the JPL Astronautical Star Catalog (JASC). When completed, the JASC will contain in one source the most accurate positions (right ascension and declinations), proper motions, and color magnitudes (such as the Johnson-Morgan U, B, V magnitudes) available for stars down to the eighth magnitude, plus other useful information.

This document is the first in a series of publications presenting data, compiled by JPL, which is to be included in the JPL Astronautical Star Catalog (JASC). All of the named stars which will appear in the JASC comprises the 537 stars of this paper.

Sections II and III and Tables 1 and 2 form the explanation for Tables 3 through 6. The star data presented in Tables 3 and 7 have been stored on magnetic tape.

II. EXPLANATION OF THE REDUCED STAR CATALOG

The "Reduced Star Catalog Containing 537 Named Stars" consists of the data contained in Tables 3 and 7. The data presented in Table 3 has been listed alphabetically by star constellation.

Since it is often more convenient to locate desired stars by other criteria than star constellation, Table 3 has been re-ordered. These new lists are given in Tables 4 through 6. These new orderings, plus Table 3, are:

- (1) Data ordered by star constellation (Table 3).
- (2) Data ordered alphabetically by star name (Table 4).
- (3) Data ordered by increasing right ascension (Table 5).
- (4) Data ordered by decreasing visual magnitude (Table 6).

Tables 1 and 2 contain explanatory information needed in conjunction with the description of data contained in Table 3. Table 7 contains approximate translations of the 537 named stars.

III. DESCRIPTION OF THE REDUCED STAR CATALOG

Since the columns of Tables 3 through 6 are identical, it is only necessary to discuss the data in Tables 3 and 7, which constitutes the reduced star catalog presented by this paper. Each of the columns of Table 3 (identical to those of Tables 4 through 6) is presented and described below.

Column 1 - Number

The star number associated with the "Reduced Star Catalog Containing 537 Named Stars."

Column 2 - Star designation

The star designation consists of three parameters, for instance,

55 ZET-1 AQR

The first parameter, 55, is the Flamsteed number associated with this particular star.

The second parameter, ZET-1, is the Bayer designation of this particular star. The designation ZET-1 is a computer shorthand notation for the Greek letter and superscript ζ^1 . The star designation may also be letters of the alphabet which are Bayer or Lacaille designations for stars. Table 2 lists the computer shorthand notation used for the Greek alphabet and lower case letters.

The third parameter is the abbreviation of the star constellation Aquarius in which this particular star lies. The list of constellation abbreviations which will be used by the JPL Astronautical Star Catalog is given in Table 1. It should be noted that the conventional SERPENS (SER) does not appear in the list. Since the constellation Serpens consists of two disjoint areas (serpens cauda and serpens caput), it was decided to use the abbreviations SCA and SCP for the two disjoint areas, respectively, with SCA + SCP = SER. The star designations were determined from Refs. 1, 2, and 3.

Column 3 -- Star proper name

The star names were based upon data gathered from Refs. 4, 5, and 1, with priority given in the order mentioned. That is, if a star name was not available in Ref. 4, then Ref. 5 was consulted, and etc. A great deal of license was taken with respect to star names taken from Ref. 5. Historically, many stars had common origins for their name, often deriving from the same word or phrase. This has resulted in having two or more stars sharing names which differ only slightly in spelling. Care has been taken to guarantee that each of the individually named stars have unique names.

Not all stars were individually named. Many shared a common name, usually the name being a figure formed by a group of stars. In this case, each of the stars were given the same name followed by a Roman numeral, the ordering being by increasing right ascension. Thus, if a star name is followed by a Roman numeral, then this star shares its name with at least one other star.

A third class of names appears in the list of stars. This class resembles the one above, except that letters enclosed in parentheses are used instead of Roman numerals. This class denotes a physical system (one which is gravitationally connected) of two or more stars, i. e., such as a binary system. The letters used are those designating the components of the multiple system (see Ref. 6).

Table 7 is presented as a quick source of the meaning of a star name, together with the source of the name and the language from which the name was derived. The following letters were used to denote language:

A	ARABIC
C	COPTIC
D	HINDU
E	EUPHRATEAN
G	GREEK
H	HEBREW
I	ENGLISH
L	LATIN
N	NOT KNOWN
P	PERSIAN
T	TURKISH
Y	EGYPTIAN

Column 4 — Right Ascension

The right ascension of the star, epoch 150.0.

Column 5 — Declination

The declination of the star, epoch 1950.0.

Column 6 — Position note (PN)

Four letters or a blank appear in this column, each denoting information concerning the right ascension and declination given. The JPL Astronautical Star Catalog will take as its fundamental source of star position and proper motion the Smithsonian Astrophysical Observatory Star Catalog (Ref. 7).

BLANK Position is that given by Ref. 7, the Smithsonian Catalog. With the exception of one star (see B), this is true for all stars in the reduced catalog.

B Position is that given by Ref. 3; no position is given by the Smithsonian Catalog.

C Position given is that of the center of gravity of a multiple physical system of stars, as indicated by Ref. 3.

L Position given is that of the center of integrated light of a multiple system of stars, as indicated by Ref. 3.

N Position given is that of HD 37022C, as indicated by Refs. 2, 3, and 8.

Column 7 — Visual magnitude

Unless indicated otherwise (Column 8), this is the Johnson-Morgan V magnitude.

Column 8 — Visual magnitude note (VN)

Three characters and a blank denote information concerning the visual magnitude presented:

BLANK Visual magnitude is from Ref. 9.

C Visual magnitude is from Ref. 9 and is the combination of two or more stars whose magnitude appeared individually in Ref. 9.

S Visual magnitude is from Ref. 9 and was derived by separating a single visual magnitude into two or more components.

* Visual magnitude is from Ref. 2.

Column 9 - Spectral class

Spectral classification in the Morgan-Keenan system, unless indicated otherwise by Column 10.

Column 10 - Spectral classification note (SN)

Information concerning source of the spectral classification:

BLANK Reference 9.

* Reference 2.

Column 11 - Henry Draper (HD) catalog number

Henry Draper catalog number and the component (A, B, C, etc.) of multiple-star systems contributing to the visual magnitudes. The Henry Draper numbers are from Ref. 8 and the double-star information is from Ref. 6. Note that when Column 6 indicates an L or C, then the components indicated are those associated with the position also.

Column 12 - SAO catalog number

Smithsonian Astrophysical Observatory (SAO) Catalog number. See Ref. 7.

Column 13 - Star properties

Special star properties:

D Double- or multiple-star system

V Variable star

Special star properties were indicated by Refs. 1, 2, 3, 6, 7, and 8.

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Table 1. Constellations

1. AND	—	ANDROMEDA	46. LEO	—	LEO
2. ANT	—	ANTLIA	47. LMI	—	LEO MINOR
3. APS	—	APUS	48. LEP	—	LEPUS
4. AQR	—	AQUARIUS	49. LIB	—	LIBRA
5. AQL	—	AQUILA	50. LUP	—	LUPUS
6. ARA	—	ARA	51. LYN	—	LYNX
7. ARI	—	ARIES	52. Lyr	—	LYRA
8. AUR	—	AURIGA	53. MEN	—	MENSA
9. BOO	—	BOOTES	54. MIC	—	MICROSCOPIUM
10. CAE	—	CAELUM	55. MON	—	MONOCEROS
11. CAM	—	CAMELOPARDALIS	56. MUS	—	MUSCA
12. CNC	—	CANCER	57. NOR	—	NORMA
13. CVN	—	CANES VENATICI	58. OCT	—	OCTANS
14. CMA	—	CANIS MAJOR	59. OPH	—	OPHIUCHUS
15. CMI	—	CANIS MINOR	60. ORI	—	ORION
16. CAP	—	CAPRICORNUS	61. PAV	—	PAVO
17. CAR	—	CARINA	62. PEG	—	PEGASUS
18. CAS	—	CASSIOPEIA	63. PER	—	PERSEUS
19. CEN	—	CENTAURUS	64. PHE	—	PHOENIX
20. CEP	—	CEPHEUS	65. PIC	—	PICTOR
21. CET	—	CETUS	66. PSC	—	PISCES
22. CHA	—	CHAMAELEON	67. PSA	—	PISCIS AUSTRINUS
23. CIR	—	CIRCINUS	68. PUP	—	PUPPIS
24. COL	—	COLUMBA	69. PYX	—	PYXIS
25. COM	—	COMA BERENICES	70. RET	—	RETICULUM
26. CRA	—	CORONA AUSTRALIS	71. SGE	—	SAGITTA
27. CRB	—	CORONA BOREALIS	72. SGR	—	SAGITTARIUS
28. CRV	—	CORVUS	73. SCO	—	SCORPIUS
29. CRT	—	CRATER	74. SCL	—	SCULPTOR
30. CRU	—	CRUX	75. SCT	—	SCUTUM
31. CYG	—	CYGNUS	76. SCP	—	SERPENS CAPUT
32. DEL	—	DELPHINUS	77. SCA	—	SERPENS CAUDA
33. DOR	—	DORADO	78. SEX	—	SEXTANS
34. DRA	—	DRACO	79. TAU	—	TAURUS
35. EQU	—	EQUULEUS	80. TEL	—	TELESCOPIUM
36. ERI	—	ERIDANUS	81. TRI	—	TRIANGULUM
37. FOR	—	FORNAX	82. TRA	—	TRIANGULUM AUSTRALE
38. GEM	—	GEMINI	83. TUC	—	TUCANA
39. GRU	—	GRUS	84. UMA	—	URSA MAJOR
40. HER	—	HERCULES	85. UMI	—	URSA MINOR
41. HOR	—	HOROLOGIUM	86. VEL	—	VELA
42. HYA	—	HYDRA	87. VIR	—	VIRGO
43. HYI	—	HYDRUS	88. VOL	—	VOLANS
44. IND	—	INDUS	89. VUL	—	VULPECULA
45. LAC	—	LACERTA			

Table 2. Computer abbreviations of Greek alphabet
and lower case letters^a

Greek		Lower case	
Abbreviation	Symbol	Abbreviation	Letter
ALP	α	-A	a
BET	β	-B	b
GAM	γ	-C	c
DEL	δ	-D	d
EPS	ϵ	-E	e
ZET	ζ	-F	f
ETA	η	-G	g
THE	θ	-H	h
IOT	ι	-I	i
KAP	κ	-J	j
LAM	λ	-K	k
MU	μ	-L	l
NU	ν	-M	m
XI	ξ	-N	n
OMI	\omicron	-O	o
PI	π	-P	p
RHO	ρ	-Q	q
SIG	σ	-R	r
TAU	τ	-S	s
UPS	υ	-T	t
PHI	ϕ	-U	u
CHI	χ	-V	v
PSI	ψ	-W	w
OME	ω	-X	x
		-Y	y
		-Z	z
^a Superscripts are denoted as follows: ALP-1 implies α^1 -H-2 implies h^2			

TABLE 3
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
1	51	AND	01 34 54.636	+48 22 32.666		+3.57C		K3 III		9927	37375	
2	49	A AND	01 27 05.505	+46 45 08.17		+5.260		KC III		9057	37275	D
3	21	ALP AND	00 05 47.841	+28 48 52.12		+2.074		B8 III P		358	37365	D
4	43	BET AND	01 06 55.456	+35 21 21.74		+2.060		M0 III		6860	54471	D
5	57	GAM-1 AND	02 00 49.177	+45 05 21.01		+2.179		K3 II		12533A	37734	D
6	46	XI AND	01 19 23.103	+42 16 02.97		+4.867	S	K3 III-IV		9207	37155	
7	34	ALP AGR	22 03 12.945	-00 33 46.59		+2.933		G2 I8		209750	145862	D
8	22	BET AGR	21 28 55.649	-05 47 31.68		+2.379		G0 I8		204967	145457	D
9	48	GAM AGR	22 19 04.420	-01 38 21.77		+3.845		A0 V		212061	146044	D
10	76	DEL AGR	22 51 59.901	-16 05 13.92		+3.266		A3 V		216627	165375	
11	2	EPS AGR	20 44 58.217	-09 40 48.21		+3.77C		A1 V		199001	144810	
12	55	ZET-1 AGR	22 26 15.261	-00 16 35.27		+4.493	S	F2 IV		213051A	146107	D
13	55	ZET-2 AGR	22 26 15.513	-00 16 36.08		+4.323	S	F2 IV		213052B	146108	D
14	43	THE AGR	22 14 11.766	-04 29 11.39		+4.155		K2 III		211391	145991	
15	63	KAP AGR	22 35 16.023	-04 29 11.39		+5.025		K2 III		214376	146210	
16	6	MU AGR	20 49 57.474	-09 10 19.76		+4.723		A8 M		198743	144895	
17	13	NU AGR	21 06 52.307	-11 34 31.13		+4.507		G8 III		201391	164182	
18	31	OMI AGR	22 00 43.657	-02 23 51.13		+4.745		B8 V E		209409	145837	
19	52	PI AGR	22 22 43.381	+01 07 22.87		+4.66C		B1 V PE		212571	127520	D
20	53	ALP AGR	19 48 20.599	+08 44 05.71		+0.753		A7 IV-V		187642	125122	D
21	60	BET AGR	19 52 51.333	+06 16 45.84		+3.714		G8 IV		188512	125223	D
22	50	GAM AGR	19 43 52.907	+10 29 24.38		+2.717		K3 II		186791	105223	
23	30	DEL AGR	19 22 58.597	+03 00 46.98		+3.356		F0 IV		182640	124603	
24	13	EPS AGR	18 57 21.118	+14 59 58.41		+4.020		K2 III		176411	104318	
25	17	ZET AGR	19 03 06.647	+13 47 15.86		+2.989		B9 V		177724	104461	D
26	55	ETA AGR	19 49 55.525	+00 52 33.23		+3.500		F6 I8		187329	125159	V
27	65	THE AGR	20 08 43.493	-00 53 55.88		+3.245		B9.5 III		191652	144150	D
28	41	101 AGR	19 34 08.066	-01 23 55.88		+4.360		B5 III		184930	143537	D
29	16	LAM AGR	19 03 35.698	-04 51 32.74		+3.433		B8 V		177756	143021	D
30	33	ARI	02 37 45.345	+26 50 50.75		+5.293		A3 V		16628A	75510	D
31	35	ARI	02 40 30.651	+27 29 44.29		+4.650		B3 V		16908	75512	
32	39	ARI	02 44 55.469	+29 02 26.66		+4.513		K1 III		17361	75578	
33	41	-C-1 ARI	02 47 02.036	+27 03 20.55		+3.610		B8 V		17573	75596	D
34	13	ALP ARI	02 04 20.917	+23 13 37.07		+2.009		K2 III		12929	75151	
35	6	BET ARI	01 51 52.340	+20 33 52.09		+2.646		A5 V		11636	75012	
36	5	GAM-1 ARI	01 50 46.955	+19 03 06.11		+4.673	S	A1 P		115028	92680	D
37	5	GAM-2 ARI	01 50 46.972	+19 02 57.87		+4.534	S	B9 V		11503A	92681	D
38	57	DEL ARI	03 08 45.995	+19 32 20.22		+4.350		K2 III		19787	93328	D
39	48	EPS ARI	02 56 20.825	+21 09 29.91		+4.638		A2 V		18519/0A8	75673	D
40	58	ZET ARI	03 12 01.326	+20 51 37.93		+4.897		A0 IV-V		20150	93062	D
41	34	MU ARI	02 39 32.488	+19 47 56.68		+5.66C		A0 IV-V		16811	93062	D
42	42	PI ARI	02 46 29.805	+17 15 27.06		+5.340		B6 IV		17543A	93127	D
43	46	RHO ARI	02 53 36.479	+17 45 38.02		+5.50C		DF5		18256	93195	D
44	13	ALP AUR	05 12 59.466	+45 56 58.04		+0.062		B8 III+P		34029AP	40186	D
45	34	BET AUR	05 55 51.579	+44 56 40.69		+1.90C		F0 IA		40183AP	40750	D
46	7	EPS AUR	04 58 22.530	+43 45 05.36		+2.379		A2 V		31964	39955	D
47	8	ZET AUR	04 58 58.690	+41 00 11.79		+3.80C		F5 II+8		32068/5	39966	D
48	10	ETA AUR	05 03 00.214	+41 10 08.39		+3.171		B3 V		32630	40026	D
49	37	THE AUR	05 56 19.627	+37 12 40.05		+2.66C		B9.5V P		40312A3	58636	D
50	3	101 AUR	04 53 43.982	+33 05 19.94		+2.692		K3 II		31398	57522	

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
51	15 LAM AUR	ALYBA II	05 15 37.211	+00 03 24.51		+4.71C		G0 V		39411A	40233	C
52	11 MU AUR	ALYBA I	05 10 00.157	+38 25 38.27		+4.960		A		33641	57755	
53	21 SIG AUR	ALYBA III	05 21 15.050	+37 20 26.65		+4.597		K4 III		35186	57981	D
54	40 PSI-1 AUR	DOLONES I	06 21 02.880	+49 18 56.91		+4.950	*	M0 IAB	*	44537	41076	
55	50 PSI-2 AUR	DOLONES II	06 35 05.703	+42 32 06.13		+4.786		K3 III		47174	41239	
56	52 PSI-3 AUR	DOLONES II	06 35 20.236	+39 56 51.00		+5.200		K3 III		47100	59319	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 25.11		+5.027		K5 III		47914	41288	D
58	56 PSI-5 AUR	DOLONES V	06 43 08.206	+43 37 45.74		+5.240		G0 V		4692A	41330	
59	57 PSI-6 AUR	DOLONES VI	06 43 51.956	+48 50 47.75		+5.21C		K1 III		49781	41346	
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+41 50 32.27		+5.005		K3 III		49320	41380	
61	61 PSI-8 AUR	DOLONES VIII	06 50 31.472	+38 34 05.87		+6.24C	*	K3 III		50204	59589	
62	62 PSI-9 AUR	DOLONES IX	06 52 50.489	+46 20 23.28		+5.750	*	B8 IV		50958	41446	
63	38 -H 800	MERGA	14 47 31.671	+46 15 25.56		+5.71C	*	DF4	*	130945	45226	
64	16 ALP 300	ARCTURUS	14 13 22.750	+19 26 30.95		-0.050		K2 III P		124997	100944	
65	42 BET 800	NEKKAR	15 00 03.684	+40 35 12.80		+3.489		G8 III		133208	45337	
66	27 GAM 800	SEGINUS	14 30 03.837	+38 31 34.12		+3.036		A7 III		127762	64203	D
67	49 DEL 800	THIBA	15 13 29.117	+33 30 01.20		+3.478		G8 III		135722A	64589	C
68	36 EPS 800	IZAR	14 42 48.137	+27 17 02.66		+2.373		A2 V+K0II		129988/9A3	83500	D
69	8 ETA 800	MUPHRID	13 52 18.168	+18 38 51.35		+2.676		S0 IV		121370	100766	
70	23 THE 300	PRIMUS ASELLUS	14 23 29.610	+52 04 52.32		+4.046		F7 V		125660	29137	
71	21 IOT 800	SECUNDUS ASELLUS	14 24 23.673	+51 35 45.93		+4.75C		A7 V		125161A	29071	D
72	17 KAP-1 800	TERTIUS ASELLUS (B)	14 11 40.271	+52 01 15.47		+6.893		F2 V		1246748	29045	D
73	17 KAP-2 800	TERTIUS ASELLUS (A)	14 11 41.519	+52 01 23.55		+4.53C		A7 IV		124675A	29046	D
74	19 LAM 800	AULAD ALYBA	14 14 28.963	+46 19 01.34		+4.179		AD P		125162	44955	D
75	51 MU -1 800	ALKALURCP	15 22 35.935	+37 33 01.49		+4.306		F0 V		137391A	64686	D
76	54 PHI 800	CEGINUS	15 36 01.742	+40 30 55.00		+5.240		G8 III-IV		139641	45643	
77	43 PSI 800	AULAD ALNAT-LAT	15 02 18.024	+27 08 25.75		+4.527		K2 III		133582	83645	
78	65 ALP CMC	ACUENS	08 55 45.247	+12 03 09.07		+4.228		A M		76756	98267	C
79	17 BET CMC	AL TARF	08 13 48.282	+02 20 21.73		+3.523		K4 III		65267	115669	D
80	43 GAM CMC	ASELLUS BOREALIS	08 40 23.702	+21 38 59.92		+4.670		A1 V		74198	80378	D
81	47 DEL CMC	ASELLUS AUSTRALIS	08 41 50.747	+18 20 21.83		+3.935		K0 III		74442	98087	D
82	41 EPS CMC	ALMALAF	08 37 35.068	+19 43 23.07		+6.300		A6 III		73731	98024	D
83	16 ZET-1 CMC	TESMINE (AB)	08 09 20.753	+17 47 55.93	L	+5.05C		F8 V		68256/7AB	97645	D
84	16 ZET-2 CMC	TESMINE (C)	08 09 21.213	+17 47 59.39		+6.200		DF2		68255C	97646	D
85	48 IOT-1 CMC	ZUBANAH (B)	08 43 38.695	+28 56 51.95		+6.57C		A3 V		747388	80415	D
86	48 IOT-2 CMC	ZUBANAH (A)	09 43 40.514	+28 56 33.19		+4.030		G9 II		74739A	80416	D
87	19 LAM CMC	PIAUTOS	08 17 33.932	+24 10 52.39		+5.91C	*	B9 V		70011	80113	D
88	77 XI CMC	NAVN	09 06 29.235	+22 14 55.95		+5.140		K0 III		79515	80666	D
89	12 ALP-1 CVM	LA SUPERBA	13 03 37.463	+45 32 01.73		+5.61C	*	K1 III	*	113847	44465	D
90	12 ALP-2 CVM	COR CAROLI (B)	12 53 40.203	+38 35 03.82		+5.610		F0 V		1124128	63256	D
91	12 ALP-2 CVM	COR CAROLI (A)	12 53 41.478	+38 35 16.82		+2.892		AD P		112413A	63257	D
92	8 BET CVM	CARA	12 31 22.283	+41 37 44.10		+4.266		G0 V		109358	44230	D
93	9 ALP CMA	SIRIUS	06 42 56.713	-16 38 46.37	C	-1.457	C	A1 V+D A		48915AB	151881	C
94	2 BET CMA	MIRZAM	06 20 29.799	-17 55 47.23		+1.390		B1 II-III		44743	151428	
95	23 GAM CMA	MIRZA	07 01 29.713	-15 33 25.79		+4.105		B6 II		53244	152303	
96	25 DEL CMA	WEZEN	07 06 21.436	-26 18 45.36		+1.838		F8 IA		54605	173047	
97	26 EPS CMA	ADHARA	06 56 39.587	-28 54 11.24		+1.50C		B2 II		52089AB	172676	D
98	1 ZET CMA	FURDUD	06 18 23.596	-30 02 23.86		+3.024		B2.5V		44402	196698	
99	31 ETA CMA	ALUDRA	07 22 06.972	-29 12 16.04		+2.44C		B5 IA		58350	173651	D
100	18 MU CMA	ISIS	06 53 49.103	-13 58 38.75		+4.990		G5 +A2		51250/1AB	152123	

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
101	16 OMI-1 CMA	UDRA	06 52 03.362	-24 07 12.87		+3.86C	K3 IAB		50877	172542	
102	24 OMI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46		+1.03C	B3 IA		53138	172839	D
103	10 ALP CMI	PROCYON	07 36 41.117	+05 21 16.81	C	+1.357	F5 IV-V		61421AB	115756	
104	3 BET CMI	GOMEISA	07 24 26.357	+08 23 29.89		+2.394	B8 V		58715	115456	D
105	5 ALP-1 CAP	PRIMA GIEDI	20 14 52.647	-12 39 51.04		+4.24C	G3 IB		192876A	163422	D
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 16.379	-12 42 04.49		+3.564	G9 III		192947AB	163427	D
107	BET-1 CAP	DABI-4 MINOR	20 17 58.071	-14 56 38.31		+6.16C	B9		193452AB	163471	D
108	9 BET-2 CAP	DABI-4 MAJOR	20 18 12.200	-14 56 26.57		+3.073	F8 V+AO		193455/6	163481	D
109	40 GAM CAP	NASHIRA	21 37 19.372	-16 53 21.05		+3.665	A8 M		206098	16456C	D
110	49 DEL CAP	DENEK ALGEDI	21 44 16.992	-16 21 18.42		+2.830	A M		207098A	164644	D
111	8 NU CAP	AL SHAT	20 17 53.485	-12 55 04.45		+4.753	B9 V		193432A	164644	D
112	ALP CAP	CANOPUS	06 22 50.493	-52 40 03.45		-0.720	F0 IA		45348	234480	
113	BET CAR	MIAPLACIDUS	09 12 39.662	-69 30 35.63		+1.678	AD III		80007	234495	
114	EPS CAR	AVIOR	08 21 29.383	-59 20 52.98		+1.880	K0 II+8		71129/O	235932	
115	10T CAR	ASPIGISCHE	09 15 45.109	-53 03 53.70		+2.248	F0 IB		80404	236808	
116	18 ALP CAS	SC-EDAR	00 37 33.313	+56 15 48.60		+2.223	K0 II-III		3712AB	21609	DV
117	11 BET CAS	CAP-1	00 06 29.735	+58 52 26.72		+2.275	F2 IV		432AB	21133	D
118	27 GAM CAS	NAVI	00 53 40.324	+60 26 47.38		+2.570	90 IV E		5394AB	11482	D
119	37 DEL CAS	RUC-BAH	01 22 31.498	+59 58 34.36		+2.677	A5 V		8538	22268	
120	45 EPS CAS	SEGIN	01 50 46.378	+63 25 29.89		+3.370	B3 IV P		11415	12031	
121	33 THE CAS	MARFAK	01 08 02.554	+54 03 04.32		+4.332	A7 V		6961	22070	
122	30 MU CAS	AL MARFAK	01 04 55.686	+54 03 32.96		+5.163	G5 V P		6582	22024	
123	ALP CEN	RIGIL KENTAURUS	14 36 11.253	-60 37 46.84	C	+1.059	G2 V+DK1		128620/1AB	252838	D
124	BET CEN	HADAR	14 00 16.510	-60 07 58.03		+0.610	B1 II		122451	252582	
125	GAM CEN	MU-LIFAIN	12 38 44.898	-48 41 07.32		+2.157	AD III		110304AB	223603	D
126	ZET CEN	BATEN KENTAURUS	13 52 24.510	-47 02 34.97		+2.540	B2 IV		121263	224538	
127	5 THE CEN	MENKENT	14 03 43.877	-36 07 25.64		+2.075	K0 III		123139	215188	
128	5 ALP CEP	ALDERAMIN	21 17 23.181	+62 22 23.74		+2.439	A7 IV-V		203280A	19302	D
129	8 BET CEP	ALFIRK	21 28 01.326	+70 20 27.85		+3.18C	B2 III		205021AB	10057	DV
130	35 GAM CEP	ERRAI	23 37 16.533	+77 21 11.73		+3.220	K1 IV		222404	10818	
131	3 ETA CEP	KABALFIRD	20 44 16.498	+61 38 38.86		+3.422	K0 IV		198145A	19019	D
132	2 THE CEP	AL KIDR	20 28 44.678	+62 49 32.32		+4.207	A M		195725	18897	
133	1 KAP CEP	AL AGHAM I	20 10 36.574	+77 33 42.36		+4.37C	B9 III		1929C7AB	9665	D
134	MU CEP	ERAKIS	21 41 58.501	+58 33 00.65		+3.990	M2 IA		205936AB	33693	DV
135	17 XI -1 CEP	KUR-4H (B)	22 02 19.143	+64 23 03.30		+6.354	A M		2097508	19826	D
136	17 XI -2 CEP	KUR-4H (A)	22 02 20.440	+64 23 01.68		+4.454	A M		209791A	19827	D
137	33 PI CEP	AL AGHAM II	23 06 18.007	+75 01 01.56		+4.401	G2 III		218658AB	10629	D
138	29 RHO CEP	KALBALRAI	22 29 27.436	+78 34 03.36		+5.520	A2		213798	110920	
139	92 ALP CET	MENKAR	02 59 39.744	+03 53 41.15		+2.517	M2 III		18884	147420	D
140	16 BET CET	DENEK KAITOS	00 41 04.811	-18 15 38.78		+2.028	K1 III		4128	110707	D
141	86 GAM CET	KAFALGEMA	02 40 42.397	+03 01 34.05		+3.458	A2 V		16970AB	110665	D
142	82 DEL CET	AL KAFF AL JID-MAH III	02 36 54.985	+00 06 50.00		+4.064	B2 IV		16582	148528	D
143	83 EPS CET	SADR AL KAITOS III	02 37 08.592	-12 05 00.36		+4.831	F5 IV-V		16620AB	148528	D
144	55 ZET CET	BATEN KAITOS	01 48 59.447	-10 24 52.90		+3.723	K2 III		11353	148059	D
145	31 ETA CET	DENEK ALGENUBI	01 06 03.420	-10 26 48.57		+3.471	K3 III		6805	147632	D
146	45 THE CET	AL NAYMAT I	01 21 31.363	-08 26 27.16		+3.603	K0 III		8512A	129274	D
147	8 TOT CET	SC-EMALI	00 16 52.784	-09 06 03.44		+3.540	K2 III		1522A	128694	D
148	91 LAM CET	MENKAB	02 57 01.871	+08 42 33.54		+4.697	B5 III		18604	110889	D
149	87 MU CET	AL KAFF AL JID-MAH IV	02 42 14.102	+69 54 15.02		+4.26C	F0 IV		17034	110723	D
150	65 XI -1 CET	AL KAFF AL JID-MAH I	02 10 20.747	+08 36 47.36		+4.360	G8 II		13611	110408	D

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151	73 XI -2 CET	AL KAFF AL JID-HAM II	02 25 29.791	+08 14 13.15		+4.211	B9 III		15318	110543	
152	68 OMI CET	MIRA	02 16 49.045	-03 12 13.39		+2.000	GM6 E	*	14386AP	129825	DV
153	89 PI CET	SADR AL KAITOS IV	02 41 44.470	-14 04 10.17		+4.215	B7 V		17081	148575	
154	72 RHO CET	SADR AL KAITOS I	02 23 31.955	-12 30 54.30		+4.880	B9 V		15130	148385	
155	76 SIG CET	SADR AL KAITOS II	02 29 42.948	-15 27 47.46		+4.748	F5 IV-V		15798	148445	
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496	G8 V P		10700	147986	
157	59 UPS CET	AL NAYMAT III	01 57 38.911	-21 19 05.71		+3.95C	M1 III		12274	167471	
158	17 PHI-1 CET	ALNITHAM I	00 41 40.021	-10 52 53.49		+4.750	K0 III		4188	147423	
159	19 PHI-2 CET	ALNITHAM II	00 53 31.022	-11 32 13.09		+5.300	K4 III		5437	147519	
160	22 PHI-3 CET	ALNITHAM III	00 56 13.593	-11 38 58.40		+5.75C	GG7	*	5722	147546	
161	23 PHI-4 CET	ALNITHAM IV	05 37 50.211	-34 05 58.73		+2.630	B8 V E		37795	196059	
162	ALP COL	WAZN	05 49 11.727	-35 47 09.73		+3.11C	K2 III		39425	196240	
163	BET COL	KURUD I	06 05 48.671	-37 14 41.29		+5.010	B9		42167	196514	
164	THE KAP	KURUD II	06 14 46.278	-35 07 22.03		+4.36C	G3 III		43785	196543	
165	21 UU COM	KISSIN	12 28 30.830	+24 50 35.98		+5.455	G8 III		108345	82346	
166	42 ALP COM	DIADEN	13 07 33.321	+17 47 38.25	L	+4.318	F5 V		114378/248	100443	D
167	15 GAM COM	AL DAFIRAH	12 24 26.870	+28 32 46.07		+4.353	K1 III-IV		108381	82313	
168	ALP R	ALFECIA MERIDIANA	19 06 04.345	-37 59 03.49		+4.10C	K2 N		178253	210990	V
169	ALP I	VARIABIS CORONAE	15 46 30.695	-28 18 32.24		+5.900	F		141527	84015	N
170	5 ALP CRB	BLAZE STAR	15 57 24.505	+26 03 35.04		+2.00C	PEC	*	143454	84129	
171	3 BET CRB	ALP-TECCA	15 32 34.145	+26 52 54.75		+2.230	AD V	*	139006	83893	
172	1 ALP CRV	MUSAKAN	15 25 45.944	+29 16 37.26		+3.668	FQ III		137909	83831	
173	9 BET CRV	ALC-HIBA	12 05 49.746	-24 27 00.13		+4.030	F2 V		105452	180505	
174	4 GAM CRV	GIENAH	12 31 45.342	-23 07 13.60		+2.666	G5 III		109379	180915	
175	7 DEL CRV	ALGORAB	12 13 13.843	-17 15 51.94		+2.589	B8 III		106625	157176	
176	2 EPS CRV	HINKAR	12 27 16.380	-16 14 14.14		+2.549	B9 V		108761A	157323	D
177	7 ALP CRT	ALKES	12 07 32.919	-22 20 30.12		+2.993	K3 III		105707	180531	
178	11 BET CRT	AL-SHARASIF II	10 57 20.138	-18 01 55.62		+4.066	K0 III		95272	156375	
179	ALP-1 CRU	ACRUX (A)	11 09 11.730	-22 33 08.99		+4.467	A2 III-IV		97277	179624	
180	ALP-2 CRU	ACRUX (B)	12 23 48.664	-62 49 15.43		+1.312	B1 IV		108248A	251904	D
181	BET CRU	MIMOSA	12 23 48.695	-62 49 22.28	B	+1.923	B3 N		1082498		D
182	GAM P	REVENATE OF THE SWAN	12 44 47.037	-59 24 56.53		+1.265	B0.5 IV	*	111123	240259	D
183	50 ALP CYG	DENEB	20 15 56.500	+37 52 35.55		+4.83C	M3 II		109903A	240019	D
184	6 BET-1 CYG	ALBIREO (A)	19 28 42.222	+27 51 12.44		+3.08C	A2 IA		192237	69773	N
185	6 BET-2 CYG	ALBIREO (B)	19 28 44.302	+27 51 32.69		+5.110	K5 II+8		183912/3A	87301	D
186	37 GAM CYG	SADR	20 20 25.927	+40 05 44.58		+2.214	B8 V		183914B	87302	D
187	18 DEL CYG	FAMARIS II	19 43 24.671	+45 00 28.23	C	+2.370	B8 V		184093A	49528	D
188	53 EPS CYG	AL JANAH	20 44 11.168	+33 46 55.15		+2.457	B9.5 III		186882AB	48796	D
189	64 ZET CYG	FAMARIS III	21 10 49.357	+30 01 15.51		+3.192	K0 III		187989A	70474	D
190	1 KAP CYG	FAMARIS I	19 15 56.786	+53 16 31.88		+3.713	G8 II		202109	71070	D
191	45 OME-1 CYG	RUCCA	21 40 19.952	+50 57 39.10		+4.665	K0 III		181276	31537	D
192	9 ALP DEL	SVALOCIN	20 37 18.874	+15 44 04.30		+4.95C	B3 IV		206672	33665	D
193	6 BET DEL	ROTANEV	20 35 12.206	+14 25 12.31		+3.766	B9 V		195556AB	49712	D
194	12 GAM-1 DEL	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.140	F7 V		196867A	106357	D
195	12 GAM-2 DEL	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.27C	K2 IV		196524AB	106475	D
196	11 DEL	AL UKUD	20 41 07.413	+14 53 38.69		+4.420	A7 III P		1973638	106476	D
197									197964A	106425	
198									197461		
199											
200											

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201	2 EPS	DEKEB DULFIM	20 30 49.400	+11 07 55.83		+4.035	B6 III		195810	106230	
202		ALRU8AH	17 42 56.440	+53 49 19.34		+5.730	AD	*	161593	30538	
203	27 -F	ADFAH ALDIB I	17 32 09.543	+68 10 01.20		+5.060	K0 III		159366	17526	
204	11 ALP	T-HUBAN	14 03 01.363	+64 36 51.57		+3.652	AD III		123299	16273	C
205	23 BET	RASTABAN	17 09 18.003	+52 20 15.65		+2.755	G2 II		155181A6	30429	D
206	33 GAM	ELIANIN	17 55 26.576	+51 29 38.53		+2.231	K5 III		164058A8	30653	
207	57 DEL	ALTAIS	19 12 32.824	+67 34 25.03		+3.067	G9 III		180711	18222	D
208	63 EPS	TYL	19 48 21.063	+70 08 26.55		+3.333	S9 III		188119A3	9540	
209	22 ZET	D-HISA-I	17 08 38.146	+65 46 33.95		+2.177	B6 III		155763	17365	D
210	14 ETA	DHIBAIN	16 23 18.476	+61 37 37.10		+2.730	G9 III		148387A3	17074	D
211	12 IOT	EDASICH	15 23 49.741	+59 08 26.16		+3.256	K2 III		137759	29520	
212	1 LAM	STAU8AR	11 28 27.546	+63 36 26.09		+3.827	K0 III		100029	15532	
213	21 MU	ALRAKIS	17 04 17.357	+54 32 07.55	L	+4.920	F5		154905/EA8	30239	D
214	24 NU -1	ALWAIQ (B)	17 31 16.719	+55 12 22.82		+4.877	A	M	159541B	30447	D
215	25 NU -2	ALWAIQ (A)	17 31 16.719	+55 12 22.82		+4.877	A	M	155560A	30450	D
216	32 XI	SRUMIUM	17 52 39.700	+56 52 47.69		+3.737	K2 III		163598	30831	
217	58 PI	TAIS I	19 20 24.856	+65 37 05.16		+4.582	A2 IV		182564	18299	
218	67 RHO	TAIS II	20 02 35.927	+67 43 51.21		+4.513	K3 III		190340	18676	
219	61 SIG	ALSAFI	19 32 27.595	+69 34 34.11		+4.656	K0 V		185144	18396	
220	60 TAU	AT-HAFI II	19 16 31.472	+73 15 47.87		+4.455	K3 III		181984	9366	
221	52 UPS	AT-HAFI I	18 55 00.917	+71 13 50.82		+4.810	K0 III		176524	9283	
222	43 PHI	ALD-418A	18 21 28.505	+71 19 42.23	L	+4.210	AD P		170000A8	9084	D
223	44 CHI	ALA-HAKAN	18 21 57.480	+72 42 42.15		+3.567	F7 V		170153	9087	D
224	31 PSI-1	DZIBAN I	17 42 49.282	+72 10 26.21		+4.594	F5 IV-V		162003A	8890	D
225	31 PSI-2	DZIBAN II	17 42 50.329	+72 10 55.38		+5.805	F8 V		162004B	8891	D
226	28 ONE	ADFAH ALDIB II	17 37 14.348	+63 46 52.49		+4.300	F5 V		160922	17576	C
227	8 ALP	KITALPHA	21 13 19.440	+05 02 24.35		+2.914	G0 III+45		202447/E	126662	
228	53 -L	SCPTIRUM	04 35 53.315	-14 24 01.60		+3.958	K2 III		29503A8	149781	D
229	53 -L	ERI	01 35 51.107	-57 29 24.93		+C.480	B5 V		10144	232481	
230	67 BET	ACERNAR	05 05 23.365	-05 08 58.54		+2.775	A3 III		33111	131794	
231	34 GAM	CURSA	03 55 41.672	-13 38 58.17		+2.953	M0 III		25025A	149283	D
232	23 DEL	HANA	03 40 51.035	-09 55 53.05		+3.530	K0 IV		23249	130886	
233	13 ZET	ZIBAL	03 13 24.143	-09 00 15.50		+4.739	A7 M		20320	130387	
234	3 ETA	ACAMAR (A)	02 53 58.952	-09 05 45.89		+3.387	K1 III-IV		19322	130197	D
235	THE-1	ACAMAR (A)	02 56 21.882	-09 30 15.15		+3.264	A3 V		16622A	216113	D
236	THE-2	ACAMAR (B)	02 56 22.578	-09 30 14.34	S	+4.263	A2		186238	216114	D
237	69 LAM	KURSI AL JAUZAH II	05 06 45.052	-08 49 00.32	S	+4.270	B2 IV		33328	131824	
238	38 OMI-1	BEID	04 09 25.339	-06 57 59.74		+4.045	F2 II-III		26574	131019	
239	40 OMI-2	KEID	04 12 58.161	-07 43 45.89		+4.473	K1 V		26965A	131063	D
240	8 RHO-1	ALUD-I I	02 58 42.365	-07 51 31.98		+5.745	DG6		18784	130243	D
241	9 RHO-2	ALUD-I II	03 00 14.692	-07 52 51.43		+5.310	GE6		18953A3	130254	D
242	10 RHO-3	ALUD-I III	02 01 49.952	-07 47 43.01		+5.257	A3		19107	130269	D
243	2 TAU-2	ANGEIENAR	02 48 46.150	-21 12 32.51		+4.763	K0 III		17624A	168094	
244	50 UPS-1	SEEMIM III	04 31 32.818	-29 51 59.49		+4.500	G6 III		29045	169570	
245	52 UPS-2	THEEIN	04 33 36.715	-30 39 48.98		+3.810	K0 III		25291	195148	
246	43 UPS-3	SEEMIM II	04 22 03.409	-34 07 54.81		+3.950	M1 III		28028	194994	
247	41 UPS-4	SEEMIM I	04 16 00.036	-33 55 05.65	L	+3.553	B8 +V		27376A6	194902	D
248	65 PSI	KURSI AL JAUZAH I	04 59 00.759	-07 14 44.98	C	+4.795	B2 V		32249	131700	D
249	66 ALP	CASTOR	07 31 24.654	+21 53 55.07		+1.560	A	M+1 V	60178/5A8	60198	D
250	78 BET	POLLUX	07 42 15.517	+28 08 55.11		+1.146	K0 III		62509A	79666	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
251	24 GAM	ALTEA	06 34 45.356	+16 26 37.40		+1.53C	AU IV		47105	55912	
252	55 DEL	WASAT	07 17 08.265	+22 04 39.08		+3.525	FO IV		56386AB	79294	D
253	27 EPS	MEBSUTA	06 40 51.353	+25 04 56.92		+2.599	GB IB		48329A	78682	D
254	43 ZET	GEM	07 01 09.627	+20 38 43.45		+3.700	F7 IB	*	52373A	79031	DV
255	7 ETA	GEM	06 11 51.568	+22 31 21.36		+3.20C	M3 III	*	42995AB	78135	DV
256	13 MU	GEM	06 19 56.036	+22 32 27.98		+2.390	M3 III		44478A	78297	D
257	18 NU	GEM	06 25 59.627	+20 14 44.06		+4.153	B7 IV E		45542AP*	78423	D
258	31 XI	GEM	06 42 29.956	+12 57 04.31		+3.353	F5 IV		48737	96074	D
259	ALP	GRU	22 05 05.486	-47 12 14.54		+1.743	B5 V		205952A	230992	D
260	BET	GRU	22 39 41.443	-47 08 48.20		+2.240	M3 II		214352	231258	D
261	GAM	GRU	21 50 54.450	-37 36 03.59		+3.50C	M3 III	*	207571	213374	D
262	64 ALP-1	HER	17 12 21.348	+14 26 45.34		+3.184	M5 II		156014A	102680	D
263	64 ALP-2	HER	17 12 22.274	+14 26 43.71		+5.477	G5 III+F2		156015B	102681	D
264	27 BET	HER	16 28 04.105	+21 35 50.16		+2.793	G8 III		149956	84411	D
265	20 GAM	HER	16 19 42.737	+19 16 05.32		+3.745	A3 III		147547A	102107	D
266	55 DEL	HER	17 12 53.555	+24 53 49.78		+3.140	A3 IV		156164A	84951	D
267	7 KAP-1	HER	16 05 48.999	+17 10 43.81		+5.00C	G8 III		145001A	101951	D
268	76 LAM	HER	17 28 42.307	+26 08 49.43		+4.400	K4 III		158393	85163	D
269	24 ONE	HER	16 23 06.383	+14 08 45.24		+4.55C	A0 P		148112A	102153	D
270	33 A	HYA	09 32 02.913	-05 41 26.92		+5.550	SK1		82870	136964	D
271	30 ALP	HYA	09 25 07.751	-08 26 27.47		+1.981	K3 III		81757	136871	D
272	4 DEL	HYA	09 35 00.534	+05 45.60		+4.143	A0 V		73262	116965	D
273	11 EPS	HYA	09 44 07.755	+06 36 12.41		+3.366	GO III+F1		74674AB	117112	D
274	16 ZET	HYA	09 52 45.092	+06 08 13.25		+3.108	G8 III		76294	117264	D
275	7 ETA	HYA	08 40 36.656	+13 34 45.66		+4.289	B3 V		74280	117050	D
276	35 IOI	HYA	09 37 18.152	-00 54 53.79		+3.983	K3 III		83618	137035	D
277	38 KAP	HYA	09 37 54.489	-14 06 16.63		+5.058	B5 V		83754	155386	D
278	13 RHO	HYA	08 45 47.115	+06 01 25.07		+4.347	A0 V		75137AB	117146	D
279	5 SIG	HYA	08 36 08.631	+03 31 05.48		+4.435	K2 III		73471	116988	D
280	31 TAU-1	HYA	09 26 36.518	-02 32 58.04		+4.387	F6 V		81397A	136952	D
281	32 TAU-2	HYA	09 29 25.937	-00 57 47.98		+4.558	A3 III		82446	136932	D
282	72 LEO	ZUBRA	11 12 32.837	+23 22 05.99		+4.525	M3 III		97778	81736	D
283	32 ALP	LEO	10 05 42.847	+12 12 44.54		+1.351	B7 V		87501A	98967	D
284	34 BET	LEO	11 46 30.605	+14 51 05.80		+2.131	A3 V		102647A	99803	D
285	41 GAM-1	LEO	10 17 13.120	+20 05 42.86		+2.289	K0 III		85484A	81298	D
286	41 GAM-2	LEO	10 17 13.401	+20 05 39.63		+3.479	G7 III		89485B	81299	D
287	68 DEL	LEO	11 11 27.095	+20 47 52.67		+2.563	A4 V		97603	81727	D
288	17 EPS	LEO	09 43 00.996	+24 00 19.62		+2.970	GO II		84441	81004	D
289	36 ZET	LEO	10 13 54.758	+23 40 01.94		+3.435	F0 III		89025	81265	D
290	30 ETA	LEO	10 04 36.533	+17 00 26.17		+3.530	A0 IB		87737	98955	D
291	7C THE	LEO	11 11 37.666	+15 42 11.38		+3.343	A2 V		97633	99512	D
292	1 KAP	LEO	09 21 44.777	+26 23 55.32		+4.460	K2 III		81146AB	80807	D
293	4 LAM	LEO	09 29 52.248	+23 11 22.21		+4.310	K5 III		82308	80885	D
294	24 MU	LEO	09 49 55.434	+26 14 36.08		+3.990	K2 III		85503	81064	D
295	14 OMI	LEO	09 38 29.108	+10 07 14.64		+3.480	A2 +F6 II		83808/5A	98709	D
296	OMI	LMI	10 50 31.231	+34 29 05.62		+3.809	K0 III-IV		94264	62297	D
297	R	LEP	04 57 19.727	-14 52 47.49		+6.00C	C7 4E	*	31296	150058	D
298	11 ALP	LEP	05 30 31.334	-17 51 24.19		+2.591	FO IB		36673A	150547	D
299	9 BET	LEP	05 26 06.030	-20 47 52.90		+2.835	G5 III		36072AB	170457	D
300	13 GAM	LEP	05 42 22.653	-22 27 49.30		+3.397	F6 V		38333A	170759	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (4D) CAT. NO.	SAO CAT. NO.	STAR PROP.
301	15 DEL LEP	ARSA AL JAUZAH	05 49 10.193	-20 52 55.23		+3.78C	G8 III		39364	170926	
302	8 ALP-1 L19	ZUBENELGENUBI I	14 47 54.959	-15 47 25.90		+5.153	F5 IV-V		1308198	158836	D
303	9 ALP-2 L18	ZUBENELGENUBI II	14 48 06.407	-15 50 06.59		+2.141	A3 V		130841A	158840	D
304	27 BET L18	ZUBENESCAMALI	15 14 18.732	-09 11 58.93		+2.612	B8 V		135742	140430	
305	44 ETA L18	ZUBAN AL KRAVI	15 41 15.398	-15 30 53.77		+5.40C	F0 III		140417	159466	
306	21 NU L18	ZUBEN AKRABI	15 03 49.923	-16 03 51.08		+5.280	K5 III		133774	159028	
307	20 SIG L18	ZUBEN ACRABI	15 01 08.247	-25 05 12.27		+3.318	M4 III	*	133216	183139	
308	16 LYN	DOLONES X	06 53 58.335	+45 09 40.72		+4.995	A2 V		50973	41463	
309	31 LYN	SARUKAT	08 19 25.154	+43 21 00.83		+4.245	K5 III		70272	42319	
310	3 ALP LVR	VEGA	18 35 14.655	+38 44 09.68		+0.044	AD V	*	172167A	67174	D
311	10 BET-1 LVR	SHELIAR	18 48 13.935	+33 18 12.51		+3.8CC	B PE		174638/5A	67451	DV
312	14 GAM LVR	SULAFAT	18 57 04.294	+32 37 11.26		+3.250	B9 III		176437A	67663	D
313	4 EPS-1 LVR	DOUBLE DOUBLES I (B)	18 42 40.665	+39 37 03.40		+6.0C1	A4	S	173583A	67309	D
314	4 EPS-1 LVR	DOUBLE DOUBLES I (A)	18 42 40.873	+39 37 00.09		+5.040	A2	S	173582B	67310	D
315	5 EPS-2 LVR	DOUBLE DOUBLES II	18 42 43.125	+39 33 31.99	L	+4.555	A3 +A5		173607/8CD	67315	D
316	6 ZET-1 LVR	NASR ALWAKI I	19 43 02.939	+37 33 05.28		+4.347	A M		173648A	67321	D
317	7 ZET-2 LVR	NASR ALWAKI II	18 43 04.779	+37 32 28.33		+5.31C	F0 IV		173649C	67324	D
318	20 ETA LVR	ALADFA	19 12 03.290	+39 03 32.09		+4.383	B2 IV		180163A	68010	D
319	2 MU LVR	AT-IFAR	18 22 34.868	+39 28 43.85		+5.11C	A3 III		169702	66943	
320	55 ALP OP4	RASALYAGUE	17 32 36.696	+12 35 41.92		+2.072	A5 III		159561	102932	
321	60 BET OP4	CEBALRAI	17 41 CC.441	+04 35 11.84		+2.771	K2 III		161036	122671	
322	62 GAM OP4	MULIPHEN	17 45 23.019	+02 43 28.29		+3.738	AO V		161968	122754	
323	1 DEL OP4	VED PRIOR	16 11 43.325	-03 34 01.41		+2.727	M1 III		146051	141052	
324	2 EPS OP4	VED POSTERIOR	16 15 40.349	-04 34 19.57		+3.233	G9 III		146791	141086	
325	13 ZET OP4	SAIK	16 34 24.137	-10 28 01.81		+2.567	O9.5V		145757	160006	
326	35 ETA OP4	SABIK	17 07 30.461	-15 39 52.89	L	+2.430	A2.5V		155125AB	160332	D
327	42 THE OP4	GARAFSA	17 18 56.157	-24 57 05.20		+3.265	B2 IV		151056	18531C	
328	10 LAM OP4	MARFIK	16 28 23.341	+02 05 31.06	C	+3.910	A1 V		148857AB	185256	D
329	40 XI OP4	AGGIA	17 18 00.251	-21 03 35.72		+4.397	F2 V		37018AB	132320	D
330	42 -C ORI	MIZAN BATIL I	05 32 55.055	-04 52 10.72	L	+4.590	B2 III		37507	132411	
331	49 -D ORI	MIZAN BATIL III	05 36 27.836	-07 14 21.42		+4.757	A4 IV		31283	94197	
332	6 -G ORI	MANICA	04 52 00.305	+11 20 45.39		+5.190	A3		35801A	113271	DV
333	58 ALP ORI	BETELGEUSE	05 52 27.869	+07 23 51.92		+C.8CC	M2 IA3	*	34085A	131907	D
334	19 BET ORI	RIHEL	05 12 07.990	-08 15 28.65		+0.153	B8 IA		35468	112740	
335	24 GAM ORI	BELLATRIX	05 22 26.838	+06 18 21.71		+1.635	B2 III		36486A	132220	D
336	34 DEL-1 ORI	MINTAKA	05 29 27.017	-00 20 09.41		+2.800	O9.5II	*	37128	132346	
337	46 EPS ORI	ALNILAM	05 33 40.476	+01 13 56.30		+1.894	B0 IA		37742/3AB	132444	D
338	50 ZET ORI	ALNITAK	05 38 14.093	-01 58 02.98		+1.749	O9.5I8+B3	*	35411AB	132071	D
339	28 ETA ORI	SAIF AL JABBAR	05 21 57.676	-02 26 25.58	L	+3.35C	B0.5V		37020-348CD	132314	D
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.935	-05 25 16.22	N	+4.500	O6 +B0.5		37041A	132321	D
341	43 THE-2 ORI	MIZAN BATIL II	05 32 55.449	-05 26 50.72		+5.077	O9.5V P		37043AB	132323	D
342	44 IOT ORI	YATSA	05 32 59.126	-05 56 28.26		+2.761	O9 III		38771	132542	D
343	53 KAP ORI	SAIP-4	05 45 23.113	-09 41 05.45		+2.064	B0.5IA		36861/2AB	112921	D
344	39 LAM ORI	MEISSA	05 32 22.913	+09 54 08.35		+3.391	M3 S		30955	94176	
345	4 OMI-1 ORI	AL KUMH I	04 49 42.658	+14 10 08.31		+4.72C	O8 +B0.5V		31421A	94218	D
346	9 OMI-2 ORI	AL KUMH II	04 53 33.423	+13 26 13.64		+4.073	K2 III		31295	112124	
347	7 PI-1 ORI	AL TAJ IV	04 52 08.440	+10 04 21.53		+4.67C	AO V		30739	112106	
348	2 PI-2 ORI	AL TAJ I	04 47 53.047	+08 48 57.64		+4.355	F6 V		30652	112106	
349	1 PI-3 ORI	IABIT	04 47 07.330	+06 52 32.26		+3.19C	B2 III		30836	112142	
350	3 PI-4 ORI	AL TAJ II	04 48 32.471	+05 31 16.34		+3.892					

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HDI) CAT. NO.	SAO CAT. NO.	STAR PROP.
351	8 PI -5 ORI	AL TAJ III	04 51 39.661	+02 21 37.24		+3.72C	*	B2 III	*	31237	112197	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 20.04		+4.459		K2 II		31767	112281	
353	36 UPS	THABIT	05 29 36.6C7	-07 20 12.87		+4.616		80 V		36512	132222	
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 27 26.67		+4.410		80 IV		36822	112914	
355	40 PHI-2 ORI	HIKA	05 34 09.415	+09 15 54.81		+4.082		K0 III		37160	112958	
356	ALP	PEACOCK	20 21 42.289	-56 53 50.02		+1.920		83 IV		19324	246574	
357	54 ALP	MARKAB	23 02 16.662	+14 56 09.11		+2.456		B9.5III		21804E	108378	
358	53 BET	SCHEAT	23 01 20.770	+27 48 40.45		+2.580	*	M2 II-III	*	217906A	90981	DV
359	88 GAM	ALGENIB	00 10 39.447	+14 54 20.57		+2.827		B2 IV		886	91781	
360	8 EPS	ENIF	21 41 43.756	+09 39 41.69		+2.397		K2 IB		206778A	127029	D
361	42 ZET	HOMAN	22 38 57.996	+10 34 11.39		+3.35C		B8 V		218923A	108103	D
362	44 ETA	MATAR	22 40 39.264	+29 57 33.42		+2.949		G2 II-III		90734	90734	D
363	26 THE	BI-HAM	22 07 40.600	+05 57 04.13		+3.515		A2 V		210419	12734C	
364	47 LAM	SADALNAZI	22 44 07.173	+23 18 07.41		+3.955		G8 II-III		215665	90775	
365	48 MU	SADALBARI	22 47 35.191	+24 20 13.72		+3.49C		G8 III		216131	90816	
366	22 NU	FUM AL FARAS	22 03 09.442	+04 48 49.17		+4.990		K4 III		209747	127285	
367	46 XI	SUODALNUJUM	22 44 11.592	+11 54 57.24		+4.2C3		F7 V		215648A2	108165	D
368	43 OMI	SADALMAYAR	22 39 24.327	+29 02 46.12		+4.907		A1 V		214994	90717	
369	62 TAU	SALH	23 18 03.5C5	+23 07 52.22		+4.58C		A5 IV		220061	91186	
370	68 UPS	ALKARAB	23 22 52.793	+23 07 43.20		+4.414		F8 IV		220657	91253	
371	-H	MISAM AL THURAYYA II	02 15 42.013	+56 56 22.44		+6.645		B2 IA		14143A	23182	D
372	33 ALP	MIRFAK	03 20 44.441	+49 41 06.04		+1.903		F5 IB		20902	38787	
373	26 BET	ALGOL	03 04 54.356	+40 45 52.46		+2.21C	*	B8 V	*	19356A	38591	DV
374	44 ZET	ATIK	03 50 58.359	+31 44 12.55		+2.850		B1 IB		24398AB	56799	D
375	15 ETA	MIRAM	02 47 01.935	+55 41 22.43		+3.767		K3 IB		17506A	23655	D
376	27 KAP	MISAM	03 06 06.756	+44 40 10.21		+3.793		K0 III		19476A	38609	D
377	46 XI	MENKIB	03 55 42.625	+35 36 58.50		+4.077		B5 V		24912	56856	
378	38 OMI	ALATIK	03 41 10.598	+32 07 53.47		+3.329		B1 III		23180AB	56673	D
379	22 PI	GORGONEA SECUNDA	02 55 33.275	+39 27 50.67		+4.637		A2 V		18411	56047	
380	25 RHO	GORGONEA TERTIA	03 01 57.795	+39 38 52.86		+3.200	*	M4 II-III	*	19059	56138	V
381	7 CHI	MISAM AL THURAYYA I	02 14 32.316	+57 17 05.57		+5.99C		G5 II		13994A	23149	C
382	28 OME	GORGONEA QUARTA	03 08 03.167	+39 25 23.39		+4.613		K0 III		19656	56224	
383	ALP	ANKAA	00 23 49.029	-42 34 36.55		+2.39C		K0 III		2261	215093	
384	BET	ALRIAL III	01 03 51.357	-46 59 09.78		+3.300		G8 III		6595AB	215365	D
385	GAM	ALRIAL V	01 26 11.776	-43 34 25.34		+3.4C0		K5 II		9053	215516	
386	KAP	ALRIAL I	00 23 44.306	-43 57 25.67		+3.329		A7 V N		2262	215092	
387	MU	ALRIAL II	00 38 58.031	-46 21 33.10		+4.583		G8 III		3915	215194	
388	NU	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.953		F9 V		7570	215428	
389	PIC	KAPTEYN'S STAR	05 09 41.462	-44 53 53.25		+8.85C		MU V		33793	217223	
390	113 ALP	ALRESCA	01 59 27.392	+02 31 23.04		+3.92C		A M42 P		13446/7AB	110291	D
391	4 BET	FUM AL SAMAKAH	23 01 19.667	+03 31 01.75		+4.518		B5 V E		217891	127934	
392	63 DEL	KUTON I	00 46 05.113	+07 18 47.93		+4.430		K5 III		4656	109474	
393	86 ZET-1	KUTON II	01 11 06.933	+07 18 41.34		+5.215		F0 IV-V		7344A	109739	D
394	86 ZET-2	KUTON III	01 11 08.346	+07 18 52.03		+6.270		F6 V		73458C	109740	D
395	110 OMI	TORULAR	01 42 44.568	+08 54 24.64		+4.258		G8 III		10761	11011C	
396	24 ALP	FOMALHAUT	22 54 53.531	-29 53 15.79		+1.153		A3 V		216356	191524	
397	17 BET	FUM AL HUI I	22 28 40.070	-32 36 11.08		+4.325		AD V		213398A	213883	D
398	PSA	FUM AL HUI II	22 28 40.353	-32 36 41.57		+7.759		S		61555A	213884	D
399	-K-1 PUP	MERKEB (A)	07 36 46.723	-26 41 12.59		+4.5C3		B8		615568C	174199	D
400	-K-2 PUP	MERKEB (B)	07 36 46.820	-26 41 19.88		+4.623		B3				

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG. N	V N	SPECTRAL CLASS	S N	HENRY DRAPER (40) CAT. NO.	SAD CAT. NO.	STAR PROP.
401	ZET PUF	NACS	08 01 49.552	-39 51 40.83		+2.255		D5		66911	158752	
402	7 XI	PUF	07 47 11.421	-24 53 59.22		+3.347		G3 I8		63700A8	174601	D
403	5 ALP	SGE	19 37 51.612	+17 53 51.21		+4.358		SC II		185758A	1C512C	D
404	60 A	SGR	19 55 54.576	-26 19 57.29		+4.330		GG5		189005	188778	
405	59 -B	SGR	19 53 52.875	-27 18 14.61		+4.52C		GK3		198603	188742	
406	62 -C	SGR	19 59 35.183	-27 51 01.64		+4.503		M4 III		193763	198844	
407	ALP	SGR	19 20 25.492	-40 42 43.10		+3.36C		M4 III		191965	229659	
408	BET-1 SGR	ARKAB PRIOR	19 19 02.916	-44 33 17.72		+4.010		88 V N		181454A	223646	D
409	BET-2 SGR	ARKAB POSTERIOR	19 19 36.611	-44 53 44.93		+4.28C		FO III N		181523	229654	
410	10 GAM	SGR	18 02 35.678	-30 25 35.80		+2.990		KU III		165135	209636	
411	19 DEL	SGR	18 17 47.554	-29 51 04.68		+2.655		K2 III		168454A	186681	D
412	20 EPS	SGR	18 20 51.188	-34 24 36.94		+1.935		B9 IV		169022A	210091	D
413	38 ZET	SGR	18 59 25.832	-29 57 12.79	L	+2.60C		A2 III		176697A8	18760C	D
414	ETA	SGR	18 14 14.573	-36 46 43.43		+3.113		M3 II		167618A8	209957	D
415	22 LAM	SGR	18 24 53.059	-25 27 04.19		+2.83C		K2 III		165916	186841	D
416	13 MU	SGR	18 10 46.324	-21 04 25.46		+3.960		B8 IA P		166337A3	186437	D
417	32 NU -1	SGR	18 51 09.004	-22 48 25.54		+4.92C		CK2		174974A8	187426	D
418	35 NU -2	SGR	18 52 05.766	-22 44 08.19		+4.390		K3 III		175190	187445	D
419	41 PI	SGR	19 06 47.450	-21 06 11.49	L	+2.934		F2 II-III		178524A8C	187756	D
420	34 SIG	SGR	18 52 09.927	-26 21 38.23		+2.063		B2 V		175191	187448	
421	40 TAU	SGR	19 03 49.160	-27 44 43.14		+3.315		K1 III		177716	187683	
422	27 PHI	SGR	18 42 31.952	-27 02 38.48		+3.177		B8 III		173300	187239	
423	47 CHI -1	SGR	19 22 14.012	-24 36 25.63		+5.02C		DA5		182369A8	188101	D
424	49 CHI -2	SGR	19 22 28.169	-24 03 43.16		+5.420		K4 III		182416	188105	D
425	42 PSI	SGR	19 12 28.592	-25 20 45.58	L	+4.85C		DF5		17950A8	187882	D
426	58 OME	SGR	19 52 46.784	-26 26 01.47		+4.700		DG5		189376	188722	D
427	21 ALP	SCO	16 26 20.466	-26 13 21.95	C	+1.08C		M1 IB		148478A8	184415	D
428	8 BET-1	SCO	16 02 31.507	-13 40 12.45		+2.628		8C.5V		144217A8	159682	D
429	8 BET-2	SCO	16 02 31.857	-19 40 01.07		+4.52C		B2 V		144218C	159683	D
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.300		80 V		143275	184014	D
431	THE	SCO	17 33 43.371	-42 58 05.15		+1.86C		FO IB		155532	228201	D
432	101-1	SCO	17 44 05.100	-40 06 34.95		+3.028		F2 IA		161471A	228420	D
433	101-2	SCO	17 46 41.171	-40 04 35.03		+4.80C		CA3		161312A	228466	D
434	KAP	SCO	17 39 01.588	-39 00 22.76		+2.410		B2 IV		160578	209163	D
435	35 LAM	SCO	17 30 12.626	-37 04 05.63		+1.617		B1 V		158926	208102	D
436	MU -1	SCO	16 48 28.579	-37 57 48.92		+3.140		B1.5V		151890	208102	D
437	MU -2	SCO	16 48 56.599	-37 56 01.17		+3.56C		B2 IV		151985	208102	D
438	NU -1	SCO	16 09 03.903	-19 19 17.45	L	+6.263		AO IV		145501C0	159763	D
439	NU -2	SCO	16 09 05.001	-19 19 56.20	L	+4.012		B2 IV-V		145502A8	159764	D
440	XI -1	SCO	16 01 36.803	-11 14 12.28	L	+4.160		F5 IV		144063A8	159665	D
441	XI -2	SCO	16 01 37.342	-11 14 08.07		+7.30C		D57		143018A3C	159666	D
442	6 PI	SCO	15 55 43.301	-25 58 18.14		+2.397		B1 V		143018A3C	183987	D
443	5 RHO	SCO	15 53 47.507	-25 04 10.42		+3.883		B2 V		142665A	183957	D
444	20 SIG	SCO	16 18 08.667	-25 28 28.14		+2.982		B1 III		147165A	184336	D
445	23 TAU	SCO	16 32 45.916	-28 06 50.56		+2.812		B0 V		145438	184481	D
446	34 UPS	SCO	17 27 21.662	-37 15 28.57		+2.700		B3 IB		158408	208896	D
447	9 OME-1	SCO	16 03 52.659	-20 32 07.11		+3.368		B1 V		144470	184123	D
448	10 OME-2	SCO	16 04 28.091	-20 44 06.53		+4.320		GG2		144608	184135	D
449	24 ALP	SCP	15 41 48.151	+06 34 53.93		+2.646		K2 III		140573A	121157	D
450	28 BET	SCP	15 43 52.670	+15 34 37.42		+3.572		A2 IV		141003A	101725	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (40) CAT. NO.	SAO* CAT. NO.	STAR PROP.
451	41 GAM	SCP										
452	13 DEL-1	SCP	15 54 08.455	+15 49 24.77		+3.841		F6 V		142860	101826	D
453	13 DEL-2	SCP	15 32 24.633	+10 42 12.66		+5.109	S	DF0		1389178	101623	D
454	37 EPS	SCP	15 32 24.681	+10 42 17.82		+4.172	S	F0 IV		138918A	101624	D
455	63 THE-1	SCA	18 53 43.976	+04 38 13.25		+3.709		A M		141795	121218	D
456	63 THE-2	SCA	18 53 45.420	+04 08 07.70		+4.622		A5 V		175638A	124066	D
457	16	TAU	03 41 49.528	+24 08 01.54		+4.975		A5 N		175639B	124070	D
458	17	TAU	03 41 54.055	+23 57 27.82		+5.455		B7 IV		23286	76126	
459	20	TAU	03 42 50.756	+24 12 47.01		+3.702		86 III		23302	76131	
460	21	TAU	03 42 55.370	+24 24 00.00		+3.918		B7 III		23408	76155	
461	22	TAU	03 43 03.846	+24 22 24.38		+5.757		89 V		23432	76159	
462	23	TAU	03 43 21.135	+23 47 38.39		+6.431		89.5V		23441	76164	
463	28	BU	03 43 21.135	+23 47 38.39		+4.176		B6 IV NM		23490	76172	
464	27	-F	03 46 12.391	+23 59 07.56		+5.47		88 P		23862	76229	
465	19	-Q	03 46 11.030	+23 54 07.66		+3.526		88 III		23850A3	76228	D
466	97 ALP	TAU	03 42 13.572	+24 18 42.51		+4.258		B6 V		23338	76140	
467	112 BET	TAU	04 33 02.836	+16 24 37.51		+0.953		K5 III		29139A8	94027	D
468	54 GAM	TAU	05 23 07.710	+28 34 01.74		+1.652		B7 III		35491	77168	
469	61 DEL	TAU	04 16 56.651	+15 30 30.62		+3.635		K0 III		27371	93858	
470	74 EPS	TAU	04 20 02.844	+17 25 36.81		+3.757		K0 III		27657	93897	
471	25 ETA	TAU	04 25 41.585	+19 04 16.36		+3.534		KU III		29305	93954	
472	77 THE-1	TAU	03 44 30.424	+23 57 07.57		+2.870		B7 III		23630A	76199	D
473	78 THE-2	TAU	04 25 42.982	+15 51 10.15		+3.943		K0 III		28307	93955	
474	65 KAP-1	TAU	04 25 49.220	+12 45 41.80		+2.419		A7 V		28315	93957	
475	67 KAP-2	TAU	04 22 26.032	+22 05 13.59		+4.220		A7 V		27934	76601	
476	69 UPS	TAU	04 23 18.680	+22 05 06.75		+5.260		A7 V		27946	76602	
477	52 PHI	TAU	04 17 16.436	+27 13 58.39		+4.288		F0 III-IV		28024	76608	
478	59 CHI	TAU	04 19 32.079	+25 30 46.87		+4.950		K1 III		27382A	76558	D
479	2 ALP	TRI	01 50 13.440	+29 20 10.14		+5.390		B9.5V		27638A	76573	D
480	4 BET	TRI	02 06 33.573	+34 45 06.52		+3.413		F6 IV		11443	74996	
481	4 ALP	TRI	16 43 21.039	-58 56 19.89		+2.997		A5 III		13161	55306	
482	2	UMA	08 30 08.936	+65 19 03.83		+1.935		K4 III		150758	253700	
483	24	-A	08 30 08.936	+65 19 03.83		+6.453		S8 V P		103095	62783	
484	18	-E	09 30 05.839	+70 03 06.47		+5.465		A M		72037	14590	
485	15	-F	09 12 36.226	+54 13 43.19		+4.552		G2 IV		82210	6897	
486	80	-G	09 05 21.316	+51 48 28.27		+4.818		A5 V		75439	27191	
487	80	-G	13 23 13.477	+55 14 52.59		+4.467		A M		78209	27136	
488	23	-H	09 27 36.565	+63 16 55.11		+4.003		A5 V		116942	28751	
489	50 ALP	UMA	11 00 39.570	+62 01 16.80		+3.556		F0 IV		81337A	14908	D
490	48 BET	UMA	10 58 50.251	+56 39 03.12		+1.193		K0 III		95689A8	15384	D
491	64 GAM	UMA	11 51 12.566	+53 58 21.98		+2.377		A1 V		95418	27876	
492	63 DEL	UMA	12 12 57.594	+57 13 36.95		+2.423		A0 V		103287	21879	
493	77 EPS	UMA	12 51 50.084	+56 13 51.14		+3.310		A3 V		106591	28315	
494	79 ZET-1	UMA	13 21 54.316	+55 11 03.46		+1.750		A0 P		112185	28553	D
495	79 ZET-2	UMA	13 21 55.808	+55 10 56.63		+2.270		A2 V		116656A	28737	D
496	85 ETA	UMA	13 45 34.234	+49 33 44.13		+3.950		A2 M.		116657B	28738	D
497	25 THE	UMA	09 29 31.489	+51 54 23.18		+1.390		B3 V		120315	44752	D
498	9 IOT	UMA	08 55 47.626	+48 14 22.05		+3.177		F6 IV		82328A8	27289	D
499	12 KAP	UMA	09 00 13.266	+47 21 20.73		+3.146		A7 V		75644A	42630	D
500	33 LAM	UMA	10 14 05.353	+47 03 53.54		+3.572		A0		77327A8	42661	D
						+3.455		A2 IV		89021	43868	

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (4D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
501	34 MU UMA	TANIA ALSTRALIS	10 19 21.469	+41 45 06.25		+3.03C	M0 III		85756	43310	D
502	54 NU UMA	ALULA BOREALIS	11 15 46.947	+33 22 02.56		+3.465	K3 III		9926248	62486	D
503	53 XI UMA	ALULA ALSTRALIS	11 15 31.162	+31 48 38.88	C	+3.8C3	G0 V		98230/1AB	62484	D
504	1 OMI UMA	MUSCIDA	09 26 07.631	+60 53 14.56		+3.347	G5 III		71369A	14573	D
505	3 PI -1 UMA	AL-HIBA II	C8 34 46.703	+65 11 44.92		+5.625	G0 V		72905	14609	
506	4 PI -2 UMA	AL-HIBA III	08 35 51.356	+64 30 16.92		+4.593	K2 III		73108	14616	
507	8 RHO UMA	AL-HIBA IV	C8 58 03.573	+67 49 35.21		+4.757	M3 III		76827	14742	
508	11 SIG-1 UMA	AL-HIBA V	09 04 01.899	+67 04 33.26		+5.147	K5 III		77800	14769	
509	13 SIG-2 UMA	AL-HIBA VI	09 06 01.131	+67 20 21.67	C	+4.796	F7 IV-V		78154AB	14788	D
510	14 TAU UMA	AL-AUD II	09 06 49.121	+63 43 07.22		+4.668	A7 M		79362/3A	14796	D
511	29 UPS UMA	AL-AUD VI	C9 47 27.112	+59 16 30.31		+3.754	F2 IV		84959AB	27401	D
512	30 PHI UMA	AL-AUD VII	C9 48 43.042	+54 17 56.53	L	+4.573	A3 S		85235AB	27408	D
513	63 CHI UMA	AL-KAFZAH	11 43 25.130	+48 03 24.16		+3.7C3	K0 III		102224	43886	
514	1 ALP UMI	POLARIS	01 48 48.786	+89 01 43.74		+2.50Q	F8 I3	*	8830A	308	DV
515	7 BET UMI	KOC-AB	14 50 49.645	+74 21 35.58		+2.673	K4 III		131973	8102	
516	11 GAM-1 UMI	P-HERKAD MINOR	15 17 07.110	+72 00 19.08		+5.020	K4 III		136726	8207	
517	13 GAM-2 UMI	P-HERKAD MAJOR	15 20 47.347	+72 00 42.57		+3.043	A3 II-III		137422	822C	
518	23 DEL UMI	VILDUN	17 49 18.333	+86 36 34.79		+4.347	A1 V		166205	2937	
519	22 EPS UMI	CIRCITORES	16 51 00.905	+82 07 21.54		+4.28C	G5 III	*	153751A	2770	D
520	16 ZET UMI	AKFA FARKADAIN	15 45 47.812	+77 56 57.09		+4.303	A3 V		142105	8328	
521	21 ETA UMI	ANNA FARKADAIN	16 18 56.288	+75 52 16.64		+4.937	DAB		149048	8470	
522	GAM-2 VEL	REGOR	08 07 59.465	-47 11 18.31		+1.933	O7 +WC7		68273A	219504	D
523	KAP VEL	MARKEB	C9 20 33.853	-54 47 47.30		+2.453	92 IV		81188	236891	
524	LAM VEL	SU-HAIL	09 06 09.310	-43 13 47.60		+2.240	K5 I3		78647AB	220878	D
525	67 ALP VIR	SPICA	13 22 33.301	-10 54 03.36		+C.968	B1 V		116658	157923	
526	5 BET VIR	ZAVIJAVA	11 48 05.387	+02 02 47.61		+3.608	F8 V		102970	119076	D
527	29 GAM VIR	PORRIMA	12 39 07.452	-01 10 31.58	C	+2.745	F0 V		110379/UA6	139917	
528	43 DEL VIR	MINELAUVA	12 53 04.585	+03 40 07.60		+3.369	M3 III		112300	119674	
529	47 EPS VIR	VINDEMIATRIX	12 59 41.210	+11 12 38.90		+2.828	G9 III		113226	10384	
530	79 ZET VIR	HEZE	13 32 09.554	-00 20 27.51		+3.363	A3 V N		118098	139420	
531	15 ETA VIR	ZANIAH	12 17 20.761	-00 23 20.65		+3.88C	A2 V		107259	138721	
532	99 IOT VIR	SYRMA	14 13 23.345	-05 45 46.18		+4.077	F7 III-IV		124950	139824	
533	98 KAP VIR	ALGAFAR I	14 10 13.451	-10 02 30.80		+4.183	K3 III		124294	158427	
534	100 LAM VIR	KAMBALYA	14 16 23.969	-13 08 30.89		+4.522	A8 M		125337	158489	
535	107 MU VIR	RIGILAUVA	14 40 25.283	-05 26 30.92		+3.863	F3 IV		129502	14009C	
536	105 PHI VIR	ALGAFAR II	14 25 37.362	-02 00 17.26		+4.799	G2 III		126963AB	139951	D
537	6 ALP VUL	ANSER	19 26 37.410	+24 33 44.90		+4.42C	M0 III		183439	87261	

TABLE 4

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
235	THE-1 ERI	ACAMAR (A)	02 56 21.982	-40 30 15.15		+3.264	S	A3 V		18622A	216113	D
236	THE-2 ERI	ACAMAR (B)	02 56 22.578	-40 30 14.34		+4.263	S	A2	*	18623B	216114	D
229	ALP	ACERNAR	01 35 51.307	-57 29 24.93		+0.490	S	B5 V		10144	232481	D
181	ALP-1 CRU	ACRUX (A)	12 23 48.664	-62 49 19.43		+1.212	S	B1 IV		108248A	251904	D
182	ALP-2 CRU	ACRUX (B)	12 23 48.695	-62 43 22.28	B	+1.923	S	B3 N	*	108249B		D
78	65 ALP	ACUBENS	08 55 45.247	12 03 09.07		+4.229	S	A M		76756	58267	D
203	27 -F	ADFA ALDIB I	17 32 09.543	68 10 01.20		+5.060		K0 III		159966	17526	D
226	28 OME	ADFA ALDIB II	17 37 14.348	68 46 52.48		+4.800		F5 V		160922	17576	D
289	36 ZET	ADFAFERA	10 13 54.758	23 40 01.94		+3.935		F0 III		89025		D
97	26 EPS	ADHARA	06 56 39.597	-28 54 16.24		+1.500		B2 II		52089A	172676	D
6	46 XI	ADHIL	01 19 23.103	45 16 02.87		+4.967		K0 III-IV		8207	37155	D
329	40 XI	AGGIA	17 18 00.251	-21 03 39.72		+4.337		F2 V		15687A	185296	D
417	32 NU -1	AIN AL RAMI I	18 51 09.064	-22 49 29.54		+4.920		CK2		174974A	187426	D
418	35 NU -2	AIN AL RAMI II	18 52 05.766	-22 44 06.15		+4.950		K3 III		175150	187445	D
520	16 ZET	AKFA FARKADAIN	15 45 47.812	77 56 57.09		+4.303		A3 V		142105	8328	D
318	20 ETA	ALADFA	19 12 03.290	39 03 32.09		+4.383		B2 IV		180153A	58010	D
133	1 KAP	AL AGHAM I	20 10 36.574	77 33 42.36		+4.370		B9 III		192907A	9665	D
137	33 PI	AL AGHAM II	23 06 18.607	75 07 01.56		+4.407		G2 III		219658A	10629	D
223	44 CHI	ALA-AKAN	18 21 57.480	72 42 42.15		+3.563		F7 V		170153	9087	D
46	7 EPS	ALANZ	04 58 22.530	43 45 05.36		+2.578		F0 IA		31964	39955	DV
378	38 OMI	ALATIK	03 41 10.598	32 07 53.47		+3.829		B1 III		23180A	56673	D
419	41 PI	AL BALDAH	19 06 47.450	-21 06 11.49	L	+2.954		F2 II-III		178524ABC	187756	D
11	2 EPS	ALBALI	20 44 59.217	-09 40 48.21	L	+3.770		A1 V		198001	144810	D
187	6 BET-1	ALBIREO (A)	19 28 42.222	27 51 12.44		+3.080		K5 II+B		182512/3A	87301	D
189	6 BET-2	ALBIREO (B)	19 28 44.302	27 51 32.63		+5.110		B8 V		1839148	87302	D
16	6 MU	ALBULAN I	20 49 57.474	-09 10 15.76		+4.723		B8 M		198743	144895	D
17	13 NU	ALBULAN II	21 06 52.307	-11 34 31.13		+4.507		G8 III		201381	164182	D
42	42 PI	AL BUTAIN I	02 46 29.805	17 15 21.06		+5.340		B6 IV		17543A	93127	D
43	46 RHO	AL BUTAIN II	02 53 36.479	17 49 30.02		+5.500		DFS		18256	93195	D
39	48 EPS	AL BUTAIN III	02 56 20.825	21 08 29.91		+4.638		A2 V		18515/GAB	75673	C
40	58 ZET	AL BUTAIN IV	03 12 01.326	20 51 37.93	L	+4.837		A0 IV-V		20150	75810	C
174	1 ALP	ALC-HIBA	12 05 49.746	-24 27 00.13		+4.030		F2 V		105452	180505	C
487	80 -G	ALCOR	13 23 13.477	55 14 52.39		+4.003		A5 V		116842	28751	C
471	25 ETA	ALCYCNE	03 44 30.424	23 57 01.57		+2.870		B7 III		23630A	76199	C
168	15 GAM	AL DAFIRAH	12 24 26.870	28 32 46.07		+4.353		K1 III-IV		108381	82313	C
466	87 ALP	ALDEBARAN	04 33 02.896	16 24 31.51		+0.858		K5 III		26135AB	94027	C
128	5 ALP	ALDERAMIN	21 17 23.181	62 22 23.74		+2.439		A7 IV-V		203280A	19302	D
222	43 PHI	ALD-HIBA	18 21 28.505	71 18 42.23	L	+4.210		A0 P		170000A	9084	D
169	ALP	ALFECCA MERIDIANA	19 06 04.345	-37 53 03.49		+4.100		A2 N		178253	210990	D
129	8 BET	ALFIRK	21 28 01.326	70 20 27.85		+3.180		B2 III		205021A	10057	DV
533	98 KAP	ALGAFAR I	14 10 13.451	-10 02 30.80		+4.183		K3 III		124294	158427	D
536	105 PHI	ALSAFAR II	14 25 37.362	-02 00 17.26		+4.198		G2 III		126868A	139951	D
359	88 GAM	ALGENIB	09 10 39.447	14 54 20.57		+2.927		B2 IV		896	91781	D
288	17 EPS	ALGENUBI	09 43 00.996	24 00 15.62		+2.970		G0 II		84441	81004	D
285	41 GAM-1	ALGIEBA (A)	10 17 13.120	20 05 42.86		+2.299	S	K0 III		89484A	81298	D
286	41 GAM-2	ALGIEBA (B)	10 17 13.401	20 05 39.69		+3.479	S	S7 III		85495B	81299	D
373	26 BET	PER	03 04 54.356	40 45 52.46		+2.200	*	B8 V		13356A	38591	DV
177	7 DEL	CRV	12 27 16.380	-16 14 14.14		+2.943	*	B9 V		108761A	157323	C
486	15 -F	UMA	09 05 21.316	51 48 28.27		+4.467		A M		78209	27136	C
510	14 TAU	AL-AUD II	09 06 49.121	63 43 01.22		+4.668		A7 M		78362/3A	14796	D

TABLE 4 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DES MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
485	18 -E UMA	AL-YAUD III	09 12 36.226	+54 13 47.19		+4.819	A5	V		79439	27191	
488	23 -H UMA	AL-YAUD IV	09 27 36.565	+62 16 55.11		+3.656	F0 IV			81937A	14908	D
497	25 THE UMA	AL-YAUD V	09 29 31.489	+51 54 23.19		+3.177	F6 IV			8232848	27289	D
511	29 UPS UMA	AL-YAUD VI	09 47 27.162	+59 16 30.31		+3.754	F2 IV			84999A3	27401	D
512	30 PHI UMA	AL-YAUD VII	09 48 43.042	+54 17 56.59	L	+4.573	A3 S			8523548	27408	D
251	24 GAM GEM	AL-YENA I	06 34 49.396	+16 26 37.40		+1.930	AO IV			47105	95912	
52	11 MU AUR	AL-YIBA I	05 10 00.157	+39 25 33.27		+4.960	A M			33641	57755	
51	15 LAM AUR	AL-YIBA II	05 15 37.271	+40 03 24.57		+4.710	GO V			34411A	40237	C
53	21 SIG AUR	AL-YIBA III	05 21 15.060	+37 20 26.65		+4.987	K4 III			35186	57981	D
493	77 EPS UMA	AL-YIBA III	12 51 50.084	+56 13 51.14		+1.750	AO P			11219E	28553	
290	30 ETA LEO	AL-YA344	10 04 36.533	+17 00 26.17		+3.530	AO I8			87737	98955	
191	53 EPS CYG	AL JANAH	20 44 11.168	+33 48 55.15		+2.453	K0 III			131385A	70474	C
150	65 XI -1 CET	AL KAFF AL JID-MAH I	02 10 20.747	+09 36 47.36		+4.350	G8 II			13611	110408	
151	73 XI -2 CET	AL KAFF AL JID-MAH II	02 25 29.791	+08 14 13.15		+4.271	B9 III			15318	110543	
142	82 DEL CET	AL KAFF AL JID-MAH III	02 36 54.985	+00 06 50.00		+4.064	B2 IV			16592	110665	
149	87 MU CET	AL KAFF AL JID-MAH IV	02 42 14.102	+05 54 15.02		+4.262	F0 IV			17034	110723	
513	63 CHI UMA	AL-KAFZA	11 43 25.030	+48 03 24.16		+3.703	K0 III			102224	43986	
486	85 ETA UMA	AL-KAID	13 45 34.294	+49 33 44.13		+1.860	B3 V			12031E	44752	
477	52 PHI TAU	AL-KALBAIN I	04 17 16.436	+27 13 53.39		+4.950	K1 III			27382A	76558	D
478	59 CHI TAU	AL-KALBAIN II	04 19 32.079	+25 30 46.87		+5.300	B9.5V			27638A	76573	D
474	65 KAP-1 TAU	AL-KALBAIN III	04 22 23.083	+22 10 51.94		+4.220	A7 V			27934	76601	
475	67 KAP-2 TAU	AL-KALBAIN IV	04 22 26.032	+22 05 13.95		+5.280	A7 V			27946	76602	
476	69 UPS TAU	AL-KALBAIN V	04 23 18.680	+22 42 06.75		+4.288	F0 III-IV			28024	76608	
75	51 MU -1 BOO	AL-KALURGPS	15 22 35.295	+37 33 05.49		+4.306	F0 V			137391A	64686	
370	68 UPS PEG	AL-KARAB	23 22 52.799	+23 07 43.20		+4.414	F9 IV			220657	91253	C
179	7 ALP CRY	AL-KES	10 57 26.138	-18 01 55.62		+4.066	K0 III			95272	156375	
132	2 THE CRY	AL-KIOR	20 28 44.679	+62 49 32.32		+4.207	A M			195725	18897	D
425	42 PSI SGR	AL-KILADAH	19 12 28.542	-25 20 40.58	L	+4.950	DF5			179504E	187882	
345	4 OMI-1 ORI	AL-KUMM I	04 49 32.058	+14 10 08.31		+4.720	M3 S			30959	94176	D
346	9 OMI-2 ORI	AL-KUMM II	04 53 43.423	+13 26 13.64		+4.073	K2 III			31421A	94218	D
5	57 GAM-1 AND	AL-MAC-1	02 00 49.177	+42 05 27.01		+2.179	K3 II			12533A	37734	D
82	41 EPS CNC	AL-MALAF	08 37 35.068	+15 43 23.07		+6.300	A6 III			73131	98024	
122	30 MU CAS	AL-MARFAK	01 04 55.685	+54 40 32.96		+5.163	G5 V P			6582	22024	
23	30 DEL AGL	AL-MIZAN I	19 22 58.597	+03 00 48.98		+3.356	F0 IV			182640	124603	
26	55 ETA AGL	AL-MIZAN II	19 49 55.525	+00 52 33.23		+3.500	F6 IV			187929	125159	
27	65 THE AGL	AL-MIZAN III	20 09 43.493	+00 58 16.06		+3.245	B9.5III			191692	144150	V
416	13 MU SGR	AL-NASL	19 22 35.678	+20 25 35.00		+2.390	K0 III			166937AB	186497	D
410	10 GAM SGR	AL-NAYMAT I	18 10 46.324	-21 04 25.46		+3.350	B8 IA P			85124	209696	D
146	45 THE CET	AL-NAYMAT II	01 21 31.363	-09 26 27.16		+3.603	K0 III			192974	129274	D
156	52 TAU CET	AL-NAYMAT III	01 41 44.660	-16 12 00.50		+3.496	G8 V P			10760	147986	D
157	59 UPS CET	AL-NAYMAT III	01 57 39.311	-21 19 03.71		+3.390	M1 III			12274	167471	D
259	ALP GRU	AL-NAYMAT III	22 05 35.486	-47 12 14.54		+1.747	B5 V			209524	230992	D
337	46 EPS ORI	AL-NILAM	05 33 40.475	-01 13 56.30		+1.594	80 IA			37128	132346	C
338	50 ZET ORI	AL-NITAK	05 38 14.643	-01 58 02.98		+1.749	09.5I8+83			3774275AB	132444	D
158	17 PHI-1 CET	AL-NIT-MAH I	00 41 40.021	-10 52 53.49		+4.750	K0 III			4188	147423	
159	19 PHI-2 CET	AL-NIT-MAH II	00 47 37.288	-10 54 47.65		+5.188	F8 V			4913	147470	
160	22 PHI-3 CET	AL-NIT-MAH III	00 53 31.022	-11 32 13.03		+5.300	K4 III			5437	147519	
161	23 PHI-4 CET	AL-NIT-MAH IV	00 56 13.563	-11 38 51.40		+5.790	G37			5722	147546	
444	20 SIG SCO	AL-NITAT I	16 18 08.667	-25 29 28.14		+2.982	91 III			147165A	184336	D
445	23 TAU SCO	AL-NITAT II	16 32 45.506	-28 06 50.56		+2.932	80 V			145438	184481	

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HDI) CAT. NO.	SAO* CAT. NO.	STAR PROP.
271	30 ALP	ALP-400	09 25 07.791	-08 26 27.47		+1.981	*	K3 III	*	81797	136871	
172	5 ALP	ALP-400A	15 32 34.145	+26 52 54.75		+2.230		A0 V		139006	83893	D
3	21 ALP	ALP-400B	00 05 47.941	+28 49 52.12		+2.074		B8 III P		358	73765	D
213	21 MU	ALRAKIS	17 04 17.357	+54 32 07.95	L	+4.920		F5		154905/6A8	10239	D
390	113 ALP	ALRESCHA	01 59 27.392	+02 31 23.04		+3.820		A M+A2 P		12446/7A8	110291	D
386	KAP	ALRIAL I	00 23 44.806	-43 57 25.67		+3.328		A7 V N		2262	215092	
397	MU	ALRIAL II	00 38 58.031	-46 21 33.10		+4.583		G8 III		3919	215194	D
384	BET	ALRIAL III	01 03 51.357	-46 59 05.38		+3.300		G8 III		65556E	215365	
398	MU	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.393		F8 V		7570	215428	
385	GAM	ALRIAL V	01 26 11.776	-43 34 25.94		+3.400		K5 II		9053	215516	
202		ALRUBA4	17 42 56.440	+53 49 19.34		+5.730	*	A0	*	161633	30538	
13	55 ZET-2	ALSAD (A)	22 26 15.513	-00 16 36.08		+4.323	S	F2 IV		2130528	146108	D
12	55 ZET-1	ALSAD (B)	22 26 15.261	-00 16 35.27		+4.493	S	F2 IV		213051A	146107	D
219	61 SIG	ALSAFI	19 32 27.595	+69 34 34.11		+4.686		K0 V		185144	18396	
199	12 GAM-2	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.270		K2 IV		197964A	105476	D
198	12 GAM-1	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.140		F7 V		191963B	105475	D
21	60 BET	ALS-4AIN	19 52 51.383	+06 16 49.84		+3.714		G8 IV		188512	125235	D
277	38 KAP	AL S4ARASIF I	09 37 54.469	-14 06 16.63		+5.058		B5 V		83754	155388	
180	11 BET	AL S4ARASIF II	11 09 11.730	-22 33 08.39		+4.467		A2 III-IV		97277	179624	
111	8 NU	AL SHAT	20 17 53.485	-12 55 04.49		+4.753		B9 V		193432A	163468	D
20	53 ALP	ALTAIR	19 48 20.589	+09 44 05.71		+0.753		A7 IV-V		187642	125122	D
207	57 DEL	ALTAIS	19 12 32.824	+67 34 25.03		+3.067		G9 III		180711	18222	
348	2 PI -2 ORI	AL TAJ I	04 47 53.047	+08 48 57.64		+4.355		A0 V		30739	112124	
350	3 PI -4 ORI	AL TAJ II	04 48 32.421	+05 31 16.34		+3.682		B2 III		30836	112142	
351	8 PI -5 ORI	AL TAJ III	04 51 33.661	+02 21 37.24		+3.720	*	B2 III	*	31237	112197	
347	7 PI -1 ORI	AL TAJ IV	04 52 06.440	+10 04 22.53		+4.670		A0 V		31295	94201	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 38 20.04		+4.459		K2 II		31767	112281	D
79	17 BET	AL TAJF	08 13 49.282	+09 20 27.73		+3.523		K4 III		65267	116569	
293	4 LAM	AL TERF	09 28 52.248	+23 11 22.21		+4.310		K5 III		82308	80885	
28	16 LAM	AL T-ALMAIN I	19 03 35.688	-04 51 32.14		+3.433		B8 V		17756	143021	D
493	2 A	AL T-ALMAIN II	19 34 09.066	-01 23 55.89		+4.360		B5 III		72037	143597	
505	3 PI -1 UMA	AL T-13A II	08 30 08.936	+65 19 03.83		+5.465		A M		72905	14590	
506	4 PI -2 UMA	AL T-13A III	08 34 46.703	+65 11 44.92		+5.625		G0 V		14609	14609	
507	8 RHO	AL T-13A IV	08 35 51.556	+64 30 16.82		+4.593		K2 III		73108	14616	
508	11 SIG-1 UMA	AL T-13A V	09 59 03.973	+67 49 35.21		+4.757		M3 IIIB		76827	14742	
509	13 SIG-2 UMA	AL T-13A VI	09 06 01.131	+67 04 33.26		+5.147		K5 III		77600	14769	
484	24 -0	AL T-13A VII	09 06 01.131	+67 20 21.67	C	+4.796		F7 IV-V		79154A8	14788	D
240	8 RHO-1 ERI	ALUD-I I	02 59 42.365	-07 51 31.98		+5.745		G2 IV		82210	6897	
241	9 RHO-2 ERI	ALUD-I II	02 59 42.365	-07 51 31.98		+5.745		D66		18784	130243	D
242	10 RHO-3 ERI	ALUD-I III	03 01 48.952	-07 47 43.01		+5.310		S66		18953A8	130254	D
99	31 ETA	ALUD-A	03 01 48.952	-07 47 43.01		+5.257		A3		19107	130269	
200	11 DEL	ALUKO	07 22 06.872	-29 12 16.04		+2.440		B5 IA		58350	173651	
503	53 XI	ALULA ALSTRALIS	11 15 31.162	+31 48 38.88	C	+3.803		A7 III P		197461	105425	D
502	25 NU	ALULA BOREALIS	11 15 46.947	+33 22 02.56		+3.465		G0 V		98230/1A8	62484	D
215	54 NU -2	ALWAD (A)	17 31 16.719	+55 13 04.07		+4.873		K3 III		99262A8	62486	D
214	24 NU -1	ALWAD (B)	17 31 11.293	+55 13 04.07		+4.800		A M		15556CA	30450	D
455	63 THE-1 SCA	ALYA (A)	18 53 43.576	+04 08 13.25		+4.622		A5 V		159541B	30447	D
456	63 THE-2 SCA	ALYA (B)	18 53 45.420	+04 08 13.25		+4.975		A5 N		175639A	124068	D
102	24 ONI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46		+3.000		B3 IA		1756398	124070	D
						+3.000		B3 IA		53138	178839	

TABLE 4 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
258	31 XI	GEM	06 42 29.366	+12 57 04.31	N	+3.353		F5	IV	49737	96074	
14	43 THE	AGR	22 14 11.766	-08 01 56.75		+4.155		G8	III-IV	211391	145991	
243	2 TAU-2	ERI	02 48 46.150	-21 12 32.91		+4.763		K0	III	178244	168094	D
383	ALP	PHE	00 23 49.629	-42 34 36.55		+2.396		K0	III	2261	215093	
537	6 ALP	VUL	19 26 37.410	+24 33 44.90		+4.420		M0	III	183439	87261	
427	21 ALP	SCO	16 26 20.266	-26 19 21.95	C	+1.060	*	M1	IB	148478/AB	184415	C
521	21 ETA	UMI	16 18 56.298	+75 52 16.64		+4.937		O48		148048	8470	
64	16 ALP	800	14 13 22.750	+19 26 36.95		-C.050		K2	III P	129897	10944	
409	BET-2	SGR	19 19 36.611	-44 53 44.93		+4.280		FD	III N	181623	229654	
408	BET-1	SGR	19 19 02.816	-44 33 17.72		+4.010		B8	V N	181454A	229646	
298	11 ALP	LEP	05 30 31.394	-17 51 24.18		+2.581		FO	IB	36673A	150547	D
301	15 DEL	LEP	05 49 16.193	-20 52 55.23		+3.780		G8	III	35364	170926	D
413	38 ZET	SGR	18 59 25.892	-23 57 12.79	L	+2.500		A2	III	176687AB	187600	D
81	47 DEL	CNC	08 41 50.747	+18 20 21.83		+3.325		K0	III	74442	58087	C
80	43 GAM	CNC	08 40 23.702	+21 38 59.82		+4.670		A1	V	80404	236808	
115	101	CAR	09 15 45.109	-59 03 53.70		+2.248		FO	IB	176524	9283	
221	52 UPS	DRA	18 55 00.917	+71 13 50.82		+4.910		K0	III	181984	68943	
220	60 TAU	DRA	19 16 31.472	+73 15 47.87		+5.110		A3	III	163702	56799	D
319	2 MU	LYR	18 22 34.868	+39 28 43.85		+2.850		B1	IB	24358AB	76228	D
374	44 ZET	PER	03 50 58.959	+31 44 12.55		+1.935		K4	III	23950AB	253700	
464	27 -F	TAU	03 46 11.030	+23 54 07.66		+4.523		K2	III	150798	83645	
481	ALP	TRA	15 02 18.094	+27 09 29.75		+4.178		K0	II+8	125162	44965	
77	43 PSI	800	14 14 28.969	+46 19 01.94		+1.890		B3	IV	71129/O	235932	
74	19 LAM	800	08 21 29.383	-59 20 52.98		+4.665		K3	IB	206672	33665	
114	EPS	CAR	01 41 11.421	-24 43 55.22		+3.987		K1	III-IV	18322	130197	D
194	80 PI-1	CYG	02 53 58.952	-03 05 45.89		+3.347		G3	IB	63700AB	174601	D
234	3 ETA	ERI	07 47 11.421	-24 43 55.22		+5.295		A3	V	16628A	75510	D
402	7 XI	PUP	02 37 45.345	+26 50 50.75		+4.513		K1	III	17361	75532	
30	33	ARI	02 40 30.651	+27 29 44.29		+4.723		K2	III	11353	148039	
31	35	ARI	02 44 55.469	+29 02 26.66		+2.540		B2	IV	121263	224538	
32	39	ARI	01 48 59.447	-10 34 52.90		+3.553		B8.5V		21736AB	194902	D
144	55 ZET	CET	04 16 00.136	-33 55 05.65	L	+3.553		M1	III	28028	134984	
126	ZET	CEN	04 22 09.409	-34 07 54.81		+4.500		G6	III	25085	169570	
247	41 UPS-4	ERI	04 31 32.818	-29 51 55.49		+4.045		F2	II-III	26574	131019	
246	43 UPS-3	ERI	05 52 26.828	+06 18 21.71		+1.635		B2	III	35468	112740	
238	38 ONI-1	ERI	04 09 25.339	-06 57 59.74		+0.800		M2	IAB	39801A	113271	DV
335	58 ALP	ORI	05 52 27.809	+07 23 57.92		+3.515	*	A2	V	210419	127340	N
363	26 THE	PEG	22 07 40.600	+05 57 04.13		+2.000	*	K2	III	143454	84129	
171	7	CRB	15 57 24.505	+26 03 39.04		+4.350		B7	IV	23288	93328	
38	57 DEL	ARI	03 08 45.985	+19 32 20.22		+5.455		M3	III	44478A	78297	D
457	16	TAU	03 41 49.528	+24 08 01.54		-0.720		FO	IA	45348	234480	D
256	13 MU	GEM	06 19 56.196	+22 32 27.98		+2.890		G8	III+F	34029AF	40186	D
112	ALP	CAR	06 22 50.493	-52 40 03.45		+6.062		F2	IV	432AB	21133	D
44	13 ALP	AUR	05 12 59.866	+45 56 56.04		+2.275		F6	IV	11443	74996	D
117	11 BET	CAS	00 06 29.735	+58 52 26.77		+1.590		A	M+1 V	60178/9AB	60198	D
479	2 ALP	TRI	00 50 13.440	+29 20 10.14		+2.771		K2	III	161096	122671	
249	66 ALP	GEM	07 31 24.654	+31 59 59.07	C							
321	60 BET	OP4	17 41 00.141	+04 35 11.84								

TABLE 4 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
76	54 PHI 800	CEGINUS	15 36 01.742	+40 30 55.00		+5.240		G8 III-IV		139641	45643	
92	8 BET CYN	CHARA	12 31 22.289	+41 37 44.10		+4.266		G0 V		109358	44230	
291	70 THE LEO	CIERTAN	11 11 37.066	+15 42 11.38		+3.343		A2 V		97633	99512	
519	22 EPS UH1	CIRCITORES	16 51 00.905	+82 07 21.54		+4.280	*	G5 IIII	*	153751A	2770	D
91	12 ALP-2 CYN	COR CAROLI (A)	12 53 41.478	+38 35 16.82		+2.992		AD P		112413A	63257	D
90	12 ALP-1 CYN	COR CAROLI (B)	12 53 40.203	+38 35 03.82		+5.610		FO V		112412B	63256	D
297	R LEP	CRIMSON STAR	04 57 19.727	-14 52 47.48		+6.000	*	C7 4E	*	31996	150058	V
269	24 OME HER	CUJAM	16 23 06.363	+14 08 45.24		+4.550		AD P		148112A	102153	D
230	67 BET ERI	CURSA	05 05 23.365	-05 08 58.54		+2.775		A3 IIII		33111	131794	
108	9 BET-2 CAP	DABI-4 MAJOR	20 18 12.200	-14 56 26.57		+3.073		F8 V+AO		193495/E	163481	D
107	BET-1 CAP	DABI-4 MINOR	20 17 58.071	-14 56 38.31		+6.160	*	B9		193452AB	163471	D
186	50 ALP CYS	DENEB	20 39 43.539	+45 06 03.12		+3.249		A2 IA		197345A	49941	D
110	49 DEL CAP	DENEB ALGEDI	21 44 16.992	-16 21 19.42		+2.930	*	A M	*	207098A	164644	D
145	31 ETA CET	DENEB ALGENUBI	01 06 08.420	-10 26 46.57		+3.437		K3 IIII		6805	147632	
260	2 BET GRU	DENEB ALNAHR	22 39 41.443	-47 08 48.20		+2.240	*	M3 IIII	*	214952	231258	
201	2 EPS DEL	DENEB DULFIM	20 30 49.400	+11 07 55.83		+4.035		B6 IIII		195810	106230	
261	GAM GRU	DENEB HUI	21 50 54.450	-37 36 03.59		+3.000		B8 IIII		207971	213374	
140	16 BET CET	DENEB KAITOS	00 41 04.911	-18 15 38.78		+2.028		K1 IIII		4128	147420	D
25	17 ZET AQL	DENEB OKAB	19 03 06.647	+13 47 15.86		+2.399		B9 V		177724	104461	D
284	94 BET LEO	DENEBOLA	11 46 30.605	+14 51 05.80		+2.131		A3 V		102647A	99809	D
24	13 EPS AQL	D4N8 AL OKAB	18 57 21.118	+14 59 56.41		+4.020		K2 IIII		176411	104318	
209	22 ZET DRA	D4T8A1	17 08 38.146	+65 46 33.99		+3.173		B6 IIII		155763	17365	
210	14 ETA DRA	D4T8A1	16 23 19.476	+61 37 37.10		+2.730		G5 IIII		148397AB	17074	D
167	42 ALP COM	DIACEM	13 07 33.321	+17 47 36.25		+4.318		F5 V		114378/2AB	100443	D
54	46 PSI-1 AUR	DOLONES I	06 21 02.990	+49 19 56.91		+4.950	*	MO IAB	*	44537	41076	
56	52 PSI-3 AUR	DOLONES II	06 35 20.296	+39 56 51.00		+5.200		B8 IIII		47100	59319	
55	50 PSI-2 AUR	DOLONES III	06 35 45.703	+42 32 06.13		+4.786		K3 IIII		47174	41239	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.023		K5 IIII		47914	41288	
58	56 PSI-5 AUR	DOLONES V	06 43 08.205	+43 37 45.74		+5.240		G0 V		48692A	41330	D
59	57 PSI-6 AUR	DOLONES VI	06 43 50.596	+48 50 40.35		+5.210		K1 IIII		48781	41346	
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+41 50 32.27		+5.005		K3 IIII		49520	41380	
61	61 PSI-8 AUR	DOLONES VIII	06 50 31.472	+38 34 05.87		+6.240	*	B9 P		50204	59589	
62	PSI-9 AUR	DOLONES IX	06 52 50.493	+46 20 23.28		+5.750	*	B8 IV		50658	41446	
308	16 LYN	DOLONES X	06 53 58.315	+45 09 40.12		+4.895		A2 V		50973	41463	
315	5 EPS-2 LYN	DOUBLE DOUBLE II	18 42 43.325	+39 33 33.99		+4.595		A3 +A5		173607/8CD	67315	D
314	4 EPS-1 LYN	DOUBLE DOUBLE I (A)	18 42 40.865	+39 37 00.09		+5.040	S	A2		173582B	67310	D
313	4 EPS-1 LYN	DOUBLE DOUBLE I (B)	18 42 40.865	+39 37 03.40		+6.003	S	A4		173583A	67309	D
430	7 DEL SCQ	DSC+UBBA	15 57 22.318	-22 29 51.37		+2.310		B0 V		143275	184014	
499	50 ALP AUR	DUB-4E	11 00 39.570	+62 01 16.80		+1.793		K0 IIII		95689AB	15384	D
224	31 PSI-1 DRA	DZIBAN I	17 42 49.282	+72 10 26.21		+4.594		F5 IV-V		162003A	8890	D
225	31 PSI-2 DRA	DZIBAN II	17 42 50.929	+72 10 55.38		+5.305		F8 V		162004B	8891	D
211	12 IOT DRA	EDSICH	15 23 48.741	+59 08 26.16		+3.256		K2 IIII		137755	25520	
458	17 TAU	ELECTRA	03 41 54.055	+23 57 27.82		+3.702		B6 IIII		23302	76131	
467	12 BET TAU	ELNAT-4	05 23 07.710	+28 34 01.74		+1.652		B7 IIII		35497	77168	
206	33 GAM DRA	ELTANIN	17 55 26.576	+51 29 38.53		+2.231		K5 IIII		164058AB	30653	D
360	8 EPS PEG	ENIF	21 41 43.756	+09 39 41.69		+2.387		K2 IB		206778A	127029	D
134	MU CEP	ERRAKIS	21 41 54.501	+53 33 00.65		+3.990	*	M2 IA	*	206936AB	33693	DV
130	35 GAM CEP	ERRAKIS	23 37 16.533	+73 16 11.73		+3.220		K1 IV		222404	10818	
193	1 KAP CYS	FAWARIS I	19 15 56.786	+53 16 31.88		+3.773		K0 IIII		181276	31537	
190	18 DEL CYS	FAWARIS II	19 43 24.671	+45 00 26.23		+2.810		B9.5 IIII		186882AB	48796	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN- HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
192	64 ZET	CYG	21 10 48.357	+30 01 15.51		+3.192		G8 II		202109	71070	
193	UMA		11 50 06.169	+38 04 39.16		+6.452		G8 V P		103095	62738	
194	24 ALP	PSA	22 54 53.531	-29 53 15.79		+1.153		A3 V		216956	131524	
195	22 NU	PEG	22 03 09.842	+04 48 46.17		+4.840		K4 III		209147	127285	
196	17 BET	PSA	22 28 40.070	-32 36 11.08		+9.325	S	A0 V		213398A	213883	D
197	4 BET	PSA	22 28 40.358	-32 36 41.57		+7.759	S			213398B	213884	D
198	1 ZET	CMA	23 01 13.867	+03 33 01.75		+4.518		B5 V E		217891	127934	
199	GAM	CRU	06 18 23.546	-30 02 23.86		+3.024		B2.5V		44402	196698	
200	42 THE	OP4	12 28 22.727	-56 50 00.33		+1.660		M3 II		108903A	240019	D
201	1 LAM	OP4	17 18 56.157	-24 57 05.20		+3.285		B2 IV		157056	185320	
202	4 GAM	CRV	11 28 27.546	+69 36 26.09		+3.327		M0 III		100029	15532	
203	101-1	SCO	12 13 13.843	-17 15 51.84		+2.589		B8 III		106625	157176	
204	3 BET	CM1	17 44 05.100	-40 06 34.95		+3.029		F2 IA		161471A	228420	D
205	28 OME	PER	07 24 26.357	+08 23 25.89		+2.854		B8 V		58715	115456	
206	22 PI	PER	03 08 03.167	+39 25 23.39		+4.513		KU III		13656	56224	
207	25 RHO	PER	03 01 57.795	+38 38 52.86		+3.200		M4 II-III		18411	56047	V
208	8 BET-1	SCG	16 02 31.507	-19 40 12.45		+2.628		B0.5V		19058	56138	
209	8 BET-2	SCG	16 02 31.857	-19 40 12.45		+4.920		B2 V		144217AB	159682	D
210	XI -1	SCO	16 01 36.889	-11 14 12.28	L	+4.160		F5 IV		144218C	159683	D
211	XI -2	SCO	16 01 37.342	-11 14 08.07		+7.300		DG7		144069/0AB	159665	D
212	32 XI	DRA	17 52 39.760	+56 52 47.68		+3.737		K2 III		163598	30631	
213	BET	CEN	14 00 16.510	-60 07 58.09		+0.610		K1 II		122451	252582	
214	8 ZET	AUR	04 58 58.680	+41 00 17.79	L	+3.800		K5 II+8		32068/9	39966	
215	10 ETA	AUR	05 03 00.214	+41 10 08.38		+3.171		B3 V		32630	40026	
216	13 ALP	ARI	02 04 20.317	+23 31 31.07		+2.009		K2 III		12329	75151	
217	44 IOT	ORI	05 32 59.126	-05 56 23.26		+2.761		O9 III		37043A3	132323	D
218	37 PHI-1	ORI	03 32 04.419	+05 27 26.67		+4.410		B0 IV		36922	112914	
219	79 ZET	VIR	15 32 08.554	-00 20 27.51		+3.363		A3 V N		118098	139420	
220	40 PHI-2	ORI	05 34 09.415	+09 15 54.81		+4.082		K0 III		37160	112958	D
221	42 ZET	PEG	22 38 57.996	+10 34 11.39		+3.390		B8 V		214923A	108103	
222	54 GAM	TAU	04 16 56.651	+15 30 30.62		+3.635		K0 III		27371	93868	
223	61 DEL	TAU	04 20 02.844	+17 25 36.81		+3.757		K0 III		27697	93897	
224	77 THE-1	TAU	04 25 42.882	+15 51 10.15		+3.848		K0 III		28307	93955	
225	78 THE-2	TAU	04 25 48.220	+15 45 41.80		+3.409		A7 III		28319	93957	
226	5 RHO	SCO	15 53 47.557	-29 04 10.42		+3.883		B2 V		142665A	183957	D
227	18 MU	CMA	06 53 43.103	-13 58 38.75		+4.990		G5 +A2		51250/1AB	152123	D
228	36 EPS	B00	14 42 48.117	+27 17 02.66		+2.373		A2 V+K0 II		129588/9AB	83500	D
229	NU -2	SCO	16 09 05.091	-19 19 56.20	L	+4.012		B2 IV-V		145502AB	153764	D
230	9 MU -1	SCO	16 09 03.549	-19 19 17.45	L	+6.263		A0 IV		145501CD	158763	D
231	10 OME-2	SCO	16 03 52.659	-20 32 07.11		+3.368		B1 V		144470	184123	D
232	3 ETA	CEP	16 04 28.691	-20 44 06.53		+4.320		SG2		144608	184135	
233	3 IOT	AUR	20 44 16.488	+61 33 38.86		+3.422		K0 IV		198143A	19019	D
234	86 GAM	CEI	04 53 43.982	+03 05 15.54		+2.652		K3 II		31398	57522	
235	12 KAP	UMA	02 40 42.397	+03 01 34.05		+3.459		A2 V		16970AB	110707	D
236	29 RHO	CEP	09 00 13.266	+47 21 20.79	L	+3.572		A0		77327AB	42661	D
237	100 LAM	VIR	22 29 27.436	+73 34 03.36		+5.520		A2		213798	10402	
238	20 EPS	SGR	14 16 23.969	-13 08 30.89		+4.522		A8 M		125337	158489	
239	KAPTEYN'S STAR		05 03 41.452	-44 59 53.25		+8.950		M0 V		33793	217223	D
240	KAUS AUSTRALIS		18 20 51.188	-34 24 36.94		+1.835		B9 IV		165022A	210091	D

TABLE 4 CONTINUED
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NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
915	22 LAM	KAUS BOREALIS	18 24 53.059	-25 27 04.18		+2.830	K2 III		163916	186841	
916	19 DEL	KAUS MEDIA	19 17 47.554	-29 51 04.68		+2.655	K2 III		168454A	186681	D
239	40 ORI-2	KEID	04 12 50.161	-07 43 45.89		+4.433	K1 V		26965A	131063	D
166	21 UU COM	KISSIN	12 28 36.830	+24 30 35.38		+5.455	A3 P		108945	82346	
227	8 ALP EQU	KITALP-4A	21 13 19.440	+05 02 24.35		+3.314	G0 III+45		202447/8	126662	
515	7 BET UNI	KOCYAB	14 50 49.645	+74 21 35.58		+2.673	K4 III		131873	8102	
41	34 MU ARI	KOLEON	02 39 32.488	+19 47 59.68		+5.650	AD IV-V		16811	93062	D
264	27 BET HER	KORNEP-4CROS	16 28 04.105	+21 35 50.16		+2.783	G8 III		148856	84411	
175	9 BET CRV	KRAZ	12 31 45.342	-23 07 13.60		+2.866	G5 III		109379	180915	
136	17 XI -2	KUR-4A (A)	22 02 26.440	+64 23 01.68		+4.454	A M		205791A	19827	D
135	17 XI -1	KUR-4A (B)	22 02 19.143	+64 23 03.30		+6.354	A M		209790B	19826	D
300	13 GAM LEP	KURSI AL JABBAR	05 42 22.653	-22 27 48.30		+3.557	F6 V		38393A	170759	D
249	65 PSI	KURSI AL JAUZAH I	04 59 00.753	-07 14 44.98		+4.795	B2 V		32249	131700	
237	69 LAM ERI	KURSI AL JAUZAH II	05 06 45.092	-08 49 00.32		+4.210	B2 IV		33328	131824	
164	THE COL	KURUD I	06 05 48.671	-37 14 41.23		+5.010	B9		42167	196514	
165	KAP COL	KURUD II	06 14 46.276	-35 07 22.03		+4.360	G8 III		43785	196642	
392	63 DEL	KUTON I	00 46 05.113	+07 18 47.93		+4.430	K5 III		4656	109474	
393	86 ZET-1	KUTON II	01 11 06.933	+07 18 41.34		+5.235	K5 III		7344A	109739	
394	86 ZET-2	KUTON III	01 11 03.346	+07 18 41.34		+5.235	F6 V		113847	94465	
89	LA SUPERBA	LESAT-4	13 03 37.463	+45 32 07.73		+5.600	K1 III		73458C	103740	D
446	34 UPS	MAHASIM	17 27 21.652	-37 15 28.57		+2.700	B3 IB		159448	208896	
45	37 THE	MAHA	05 56 18.627	+37 12 40.05		+2.660	B9.5V P		403124B	58636	D
459	20	MANICA	03 42 50.756	+24 12 47.01		+3.978	B7 III		23408	76155	
332	-6 ORI	MARFIK	04 52 00.305	+11 20 45.39		+5.150	A3		31283	94197	
121	33 THE CAS	MARKAB	01 08 02.554	+54 53 04.32		+4.332	A7 V		6961	22070	
328	10 LAM OP-4	MARKAB	16 28 23.341	+52 05 31.06		+3.810	A1 V		148857AB	121658	
357	54 ALP PEG	MARKES	23 02 16.052	+14 56 09.11		+2.496	B9.5III		218045	108378	
523	KAP VEL	MARSIC	09 20 33.853	-54 47 47.30		+2.493	B2 IV		81188	236891	
267	7 KAP-1	MARSIC	16 05 48.389	+17 10 43.81		+5.000	G8 III		145001A	101951	D
268	76 LAM HER	MATAR	17 28 42.947	+26 08 49.49		+4.400	K4 III		158899	85163	
362	44 ETA PEG	MEBSUIA	22 40 32.264	+29 57 33.42		+2.949	G2 II-III		215182A	90734	D
253	27 EPS GEM	MEGREZ	06 40 51.363	+25 10 56.92		+2.988	G8 IB		48325A	78682	D
492	69 DEL UMA	MEISSA	12 12 57.584	+57 19 36.95		+3.310	A3 V		106591	28315	D
344	39 LAM ORI	MEKAB	05 32 22.913	+09 54 08.35		+3.351	F7 IB		36861/2AB	112921	D
254	43 ZET GEM	MENKAB	07 01 03.627	+20 39 43.45		+3.700	F7 IB		52373A	75031	DV
148	91 LAM CET	MENKALINAN	02 57 01.871	+08 42 33.54		+4.657	B5 III		18604	110889	
45	34 BET AUR	MENKAR	05 55 51.579	+44 56 40.69		+1.900	A2 V		401834P	40750	D
139	92 ALP CET	MENKENT	02 59 39.744	+02 53 41.15		+2.517	M2 III		18884	110920	
127	5 THE CEN	MENKIB	14 03 43.877	-36 07 29.64		+2.075	K0 III		123139	205188	
377	46 XI PER	MERAK	03 55 42.825	+35 38 56.50		+4.037	B5 V		24912	56856	
490	48 BET UMA	MERGA	10 58 50.251	+56 33 03.12		+2.377	A1 V		95418	27876	
63	-H B00	MERKEB (A)	14 47 31.671	+46 13 25.56		+5.710	DF4		130945	45226	
399	-K-1 PUP	MERKEB (B)	07 36 46.323	-26 41 12.53		+4.509	S B0		61555A	174198	D
400	-K-2 PUP	MEROPE	07 36 46.820	-26 41 15.88		+4.629	S B3		61556B	174199	D
462	23	MESARTIM (A)	03 43 21.195	+23 47 38.99		+4.176	B6 IV NN		23480	76172	
37	5 GAM-2 ARI	MESARTIM (B)	01 50 46.872	+19 02 57.87		+4.554	B9 V		11503A	92681	D
36	5 GAM-1 ARI	MESARTIM (C)	01 50 46.855	+19 03 06.11		+4.673	A1 P		11502B	92680	D
113	BET CAR	MIRFLACIOUS	09 12 39.662	-69 30 35.63		+1.678	AD III		80007	250495	
183	BET CRU	MIMOSA	12 44 47.037	-59 24 56.53		+1.265	80.5IV		111123	240259	
272	9 DEL HVA	MINAZAL I	08 35 00.594	+05 52 45.60		+4.143	AO V		73262	116965	

TABLE 4 CONTINUED

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275	7 ETA	MINAZAL II	08 40 36.636	+03 34 45.66	L	+4.289	B3 V		74290	117050	
273	11 EPS	MINAZAL III	08 44 07.755	+06 36 12.41		+3.366	G0 III+P7		74874ABC	117112	D
278	13 RHO	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347	A0 V		75137A3	117146	D
274	16 ZET	MINAZAL V	08 52 45.092	+06 08 13.25		+3.165	G8 III		76294	117264	
528	43 DEL	MINELAUVA	12 53 04.986	+03 04 07.60		+3.358	M3 III		112300	119674	
279	5 SIG	MINKALSHUJA	08 36 08.671	+03 31 05.48		+4.435	K2 III		73471	116988	
178	2 EPS	MINKAR	12 07 32.919	-22 20 30.12		+2.593	K3 III		105707	180531	
292	1 KAP	LEO MINKARASAD	09 21 44.777	+26 23 55.32		+4.461	K2 III		81146AB	80807	D
336	34 DEL-1	MINTAKA	05 29 27.017	-00 20 04.41		+2.200	09.5 II	*	36486A	132220	D
152	68 OMI	MIRA	02 16 49.145	+03 12 13.39		+2.000	GM6 E	*	14386AF	129825	DV
4	43 BET	MIRAC-1	01 06 55.456	+35 21 21.74		+2.060	M0 III		6860	54471	D
375	15 ETA	MIRAM	02 47 01.935	+55 41 22.43		+3.267	K3 IB		17506A	23655	D
372	33 ALP	MIRFAK	03 20 44.471	+49 41 06.04		+1.903	F5 IB		20902	38787	
95	23 GAM	MIRZA	07 01 29.713	-15 33 26.79		+4.105	B8 II		53244	152303	
94	2 BET	MIRZAM	06 20 29.789	-17 55 47.23		+1.980	B1 II-III		44743	151428	
376	27 KAP	MISAM	03 06 06.756	+44 40 16.21		+3.753	G5 II		19476A	38609	D
381	7 CHI	MISAM AL THURAYYA I	02 14 32.316	+57 17 03.57		+5.390	G5 II		13954A	23149	D
371	-H	MISAM AL THURAYYA II	02 15 42.013	+56 56 27.44		+6.645	B2 IA		14143A	23182	D
480	4 BET	MIZAN	02 06 33.579	+34 45 06.52		+2.397	A5 III		13161	55306	D
330	42 -C	MIZAN BATIL I	05 32 55.055	-04 52 10.72	L	+4.550	B2 III		37018AB	132320	D
341	43 THE-2	MIZAN BATIL II	05 32 55.499	-05 26 50.72		+5.077	09.5V P		37041A	132321	D
331	49 -D	MIZAN BATIL III	05 36 27.836	-07 14 21.42		+4.757	A4 IV		37507	132411	D
494	79 ZET-1	MIZAR (A)	13 21 54.916	+55 11 09.46		+2.270	A2 V		116656A	28737	D
495	79 ZET-2	MIZAR (B)	13 21 55.868	+55 10 56.63		+3.950	A2 M		116657B	28738	D
125	GAM	MU-LIFAIN	12 38 44.898	-49 41 07.32		+2.157	AD III		110304A3	223603	D
434	KAP	MULA	17 39 01.548	-39 00 22.76		+2.410	B2 IV		160578	10766	
322	62 GAM	MULIPATEN	17 45 23.019	+02 43 28.28		+3.739	AD V		161868	12754	
69	8 ETA	MUP-IRID	13 52 18.168	+18 38 51.35		+2.676	G0 IV		121370	10766	
504	1 OMI	MUSCIDA	08 26 07.631	+60 53 14.56		+3.347	G5 III		71369A	14573	D
88	77 XI	NA-EN	09 06 29.235	+22 14 55.95		+5.140	K0 III		78515	80666	D
33	41 -C-1	NAIR AL BUTAIN	02 47 02.036	+27 03 20.55		+3.610	B8 V		17573	75596	D
422	27 PHI	NAMALSADIRAH I	18 42 31.962	-27 02 36.48		+3.177	B8 III		173300	187239	
421	40 TAU	NAMALSADIRAH II	19 03 49.160	-27 44 47.14		+3.315	K1 III		177716	187683	
423	47 CHI-1	NAMALSADIRAH III	19 22 14.012	-24 36 26.63		+5.020	0A5 III		182359AE	188101	D
424	49 CHI-2	NAMALSADIRAH IV	19 22 23.169	-24 03 43.16		+5.420	K4 III		182416	188105	D
414	ETA	NAMALSADIRAH	18 14 14.573	-36 46 43.49		+3.113	M3 II		167618AB	209957	D
401	ZET	NAOS	08 01 49.552	-39 51 40.83		+2.255	05 F		66811	198752	D
450	28 BET	NASAK SHAMIYA I	15 43 52.670	+15 34 37.42		+3.672	A2 IV		141003A	101826	D
451	41 GAM	NASAK SHAMIYA II	15 54 08.455	+15 43 24.77		+3.341	F6 V		142860	101826	D
265	20 GAM	NASAK SHAMIYA III	16 19 42.737	+19 16 09.32		+3.745	A9 III		147547A	182107	D
454	37 EPS	NASAK YAMANI I	15 49 19.243	+04 37 36.85		+3.708	A M		141795	121218	D
453	13 DEL-2	NASAK YAMANI II (A)	15 32 24.681	+10 42 17.82		+4.173	F0 IV		139918A	101623	D
452	13 DEL-1	NASAK YAMANI I (B)	15 32 24.533	+10 42 12.66		+5.103	DF0 M		138917B	101623	D
109	40 GAM	NAS-IRA	21 37 19.372	-16 53 21.05		+3.665	A8 M		206088	164560	D
316	6 ZET-1	NASR ALWAKI I	18 43 02.939	+37 33 06.28		+4.347	A M		173648A	67321	D
317	7 ZET-2	NASR ALWAKI II	18 43 04.779	+37 32 28.33		+5.730	F0 IV		173648D	67324	D
118	27 GAM	NAVI	00 53 40.324	+60 26 47.38		+2.370	80 IV E		5394A3	11482	D
65	42 BET	NEKKAR	15 00 03.664	+40 35 12.80		+3.489	G8 III		133208	45337	D
1	51	NEMBUS	01 34 54.636	+48 22 32.66		+3.570	K3 III		3927	37375	D
299	9 BET	NI-AL	05 26 06.090	-20 47 52.90		+2.835	G5 III		36079AB	170457	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
257	18 NU	NUCATAI	06 25 59.627	+20 14 44.06		+4.153		B7 IV E		455424P	78423	D
420	34 SIG	NUNKI	18 52 09.927	-26 21 36.29		+2.063		B2 V		175191	187448	D
442	6 PI	SCO	15 55 43.301	-25 59 19.14		+2.997		B1 V		143018A3C	183987	D
173	3 BET	NUSAKAN	15 25 45.344	-29 16 37.2E		+3.668		F0 III		13790E	83631	D
470	74 EPS	TAU	04 25 41.585	+19 04 16.36		+3.534		K0 III		28305	93954	D
356	ALP	PAV	20 21 42.289	-56 53 58.02		+1.92C		B3 IV		193924	246574	D
162	ALP	COL	05 37 50.211	-34 05 58.73		+2.630		B8 V E		37795	196059	D
491	64 GAM	UMA	11 51 12.566	+53 58 21.98		+2.433		A0 V		103287	21879	D
517	13 GAM-2	UMI	15 20 47.347	+72 00 42.97		+3.043		A3 II-III		137422	8220	D
516	11 GAM-1	UMI	15 17 07.110	+72 00 19.08		+5.02C		K4 III		136726	8207	D
87	19 LAM	CNC	08 17 33.902	+24 10 52.39		+5.310		B3 V		70011	80113	D
463	28 BU	TAU	03 46 12.351	+23 59 07.56		+5.047		B8 P		23862	76229	D
514	1 ALP	UMI	01 48 48.786	+89 01 43.74		+2.500		F8 I3		8900A	308	D
250	78 BET	GEN	07 42 15.517	+28 08 55.11		+1.146		K0 III		62509A	79666	D
527	29 GAM	VIR	12 39 07.452	-01 10 31.58		+2.745		FD V		11037970A8	138917	D
296	OMI	LMI	10 50 31.231	+34 29 05.62		+3.8C8		K0 III-IV		94264	62297	D
105	5 ALP-1	CAP	20 14 52.647	-12 39 51.04		+4.240		33 I3		192876A	163422	D
70	23 THE	BOO	14 23 29.610	+52 04 52.32		+4.046		F7 V		126660	29137	D
103	10 ALP	CMI	07 36 41.117	+05 21 16.81		+0.357		F5 IV-V		51421A3	115756	D
255	7 ETA	GEN	06 11 51.558	+22 31 23.36		+3.21C		M3 III		4295AB	78135	D
232	23 DEL	ERI	03 40 51.035	-09 55 33.05		+3.530		K0 IV		23249	130586	D
294	24 MU	LEO	09 49 55.434	+26 14 36.08		+3.89C		K2 III		85503	81064	D
262	64 ALP-1	HER	17 12 21.948	+14 26 45.34		+3.194		M5 II		156014A	102680	D
263	64 ALP-2	HER	17 12 22.274	+14 26 43.71		+5.477		G5 III+F2		156015B	102681	D
320	55 ALP	OPH	17 32 36.696	+12 35 41.92		+2.072		A5 III		153561	102332	D
205	23 BET	DRA	17 29 18.009	+52 20 15.65		+2.755		G2 II		151918A	30429	D
522	GAM-2	VEL	08 07 59.455	-47 11 18.31		+1.833		07 +UC7		69273A	219504	D
283	32 ALP	LEO	10 05 42.647	+12 12 44.54		+1.351		B7 V		87501A	98367	D
185	34 P	CYG	20 15 56.500	+37 52 35.55		+4.930		8 P		193237	69773	N
334	19 BET	ORI	05 12 07.590	-08 15 28.65		+C.153		86 IA		34085A	131907	D
535	107 MU	VIR	14 40 25.293	-05 26 30.92		+3.393		F3 IV		129502	140090	D
123	ALP	CEN	14 36 11.253	-03 37 46.84		+C.059		G2 V+DK1		12062071AB	252838	D
197	6 BET	DEL	20 35 12.206	+14 25 12.31		+3.583		F5 IV		196524A3	106316	D
195	45 ONE-1	CYG	20 28 30.540	+48 46 57.97		+4.95C		B2 V		135556AB	49712	D
119	37 DEL	CAS	01 22 31.498	+59 59 34.36		+2.577		A5 V		9538	22258	D
407	ALP	SGR	19 26 25.492	-40 42 43.10		+3.96C		B9 III		181969	228559	D
326	35 ETA	OPH	17 07 30.461	-15 39 52.89		+2.430		A2.5V		151125AB	160332	D
9	98 GAM	AQR	22 19 04.420	-01 38 23.77		+3.945		A0 V		212061	146044	D
365	48 MU	PEG	22 47 35.191	+24 20 13.72		+3.490		G8 III		216131	90816	D
368	43 OMI	PEG	22 39 24.327	+29 02 46.12		+4.8C7		A1 V		214994	50717	D
7	34 ALP	AQR	22 03 12.945	-00 33 48.59		+2.933		G2 I3		209750	145862	D
18	31 OMI	AQR	22 00 43.657	-02 23 51.13		+4.745		B8 V E		203409	145837	D
364	47 LAM	PEG	22 44 07.173	+23 18 07.41		+3.955		G8 II-III		215665	90775	D
8	22 BET	AQR	21 28 55.649	-05 47 31.68		+2.878		G0 I3		204867	145457	D
189	37 GAM	CYG	20 20 25.927	+40 05 44.59		+2.214		F9 I3		194093A	49528	D
154	72 RHO	CET	02 23 31.955	-12 30 54.30		+4.88C		B9 V		15130	148385	D
155	76 SIG	CET	02 29 42.948	-15 27 47.46		+4.748		F5 IV-V		15798	148445	D
143	83 EPS	CET	02 37 08.552	-12 05 00.36		+4.837		F5 IV-V		16620AB	148528	D
153	89 PI	CET	02 41 44.470	-14 04 10.17		+4.235		B7 V		17081	148575	D
339	28 ETA	ORI	05 21 57.676	-02 26 25.58		+3.35C		B0.5V		35411AE	132071	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER CAT. NO.	SAO CAT. NO.	STAR PROP.
325	13 ZET	SAIK	16 34 24.137	-10 28 02.91		+2.587	09.5V		143757	160006	
343	53 KAP	SAIP-1	05 45 23.113	-09 41 09.45		+2.084	80.5FA		38771	132542	
369	62 TAU	PEG	23 18 09.505	+23 27 59.22		+4.590	A5 IV		220061	91186	
431	THE SCO	SARGAS	17 33 43.371	-42 58 05.15		+1.86C	F0 I8		159532	228201	
266	65 DEL	SARIN	17 12 58.555	+24 53 49.78		+3.140	A3 IV		156164A	84951	D
228	53 -L	SEPTURUM	04 35 53.315	-14 24 01.60		+3.858	K2 III		29503AB	149781	D
358	53 BET	SCHEAT	23 01 20.770	+27 49 40.45		+2.560	M2 II-III	*	217905A	90981	DV
116	18 ALP	SCHECAR	00 37 39.313	+56 15 46.60		+2.223	K0 II-III		37124B	21609	DV
147	8 IOT	SCHEMALI	00 16 52.794	-03 06 03.44		+3.540	K2 III		15224	128694	D
19	52 PI	SEAT	22 22 43.381	+01 07 22.87		+4.66C	B1 V PE		212571	127520	
106	6 ALP-2	SECUNDA GIEDI	20 15 16.878	-12 42 04.49		+3.364	G9 III		192947AB	163427	D
71	21 IOT	SECUNDUS ASELLUS	14 14 23.673	+51 35 49.93		+4.75C	A7 V		125161A	28071	D
120	45 EPS	SEGIN	01 50 46.379	+63 25 23.89		+3.370	B3 IV P		11415	12031	
66	27 GAM	SEGINUS	14 30 07.937	+39 31 34.12		+3.036	A7 III		127762	64203	D
403	5 ALP	SEHAM	19 37 51.612	+17 53 51.21		+4.358	G0 II		185758A	105120	D
309	31 LYN	SHAUKA-4	08 19 25.154	+43 21 00.83		+4.245	K5 III		70272	42319	
435	35 LAM	SHO	17 30 12.626	-37 04 09.63		+1.617	B1 V		158926	208954	DV
311	10 BET-1	SHULIAK	18 48 13.935	+33 18 12.51		+3.40C	B PE		174638/5A	67451	
35	6 BET	SHERATAN	01 51 56.340	+20 33 52.09		+2.526	A5 V		11636	75012	
93	9 ALP	SIRIUS	06 42 56.713	-16 38 46.37	C	-1.467	A1 V+WD A		48315AB	151881	D
15	63 KAP	SITULA	22 35 10.023	-04 29 11.39		+5.025	K2 III		214376	146210	
10	76 DEL	SKAT	22 51 53.951	-16 05 13.52		+3.266	A3 V		216627	165375	
525	67 ALP	SPICA	13 22 33.301	-10 54 03.35		+0.968	B1 V		116658	157923	
460	21 TAU	STEROPE I	03 42 55.370	+24 24 00.00		+5.757	B8 V		23432	76159	
461	22 TAU	STEROPE II	03 43 03.946	+24 22 24.33		+6.430	B9.5V		23441	76164	
295	14 OMI	SUBRA	09 38 29.008	+10 07 14.64		+3.48C	A2 +F6 II		83808/5A	99709	D
524	LAM	SUJAIL	09 06 03.310	-43 13 47.60		+2.240	K5 I8		78647AB	220878	D
312	14 GAM	SULAFAT	22 44 11.592	+11 54 57.24		+3.25C	B9 III		176437A	67663	D
46 XI	PEG	SUUDALNUJUM	18 57 04.294	+32 37 11.26		+4.203	F7 V		215648AB	108165	D
9 ALP	DEL	SVALOCIN	20 37 18.874	+15 44 04.30		+3.766	B9 V		198867A	103357	D
532	9 IOT	SYRMA	14 13 23.345	-05 45 46.18		+4.077	F7 III-IV		124850	139824	
349	1 PI -3	TABIT	04 47 07.390	+06 52 32.26		+3.19C	F6 V		30652	112106	
217	58 PI	TAIS I	19 20 28.896	+65 37 05.16		+4.593	A2 IV		182564	18299	
67 RHO	DRA	TAIS II	20 02 35.927	+67 43 51.21		+4.513	K3 III		190940	18676	
436	MU -1 SCO	TALI AL SHAULA-I	16 48 28.679	-37 57 48.92		+3.140	B1.5V	*	151890	208102	
437	MU -2 SCO	TALI AL SHAULA-II	16 48 28.679	-37 57 48.92		+3.56C	B2 IV		151985	208116	D
498	9 IOT	TALITHA	09 55 47.626	+48 14 22.05		+3.146	A7 V		76644A	42630	
501	34 MU	TANIA AUSTRALIS	10 19 21.469	+41 45 06.25		+3.01C	M0 III		89758	43310	
500	33 LAM	TANIA BOREALIS	10 14 05.353	+43 09 53.54		+3.455	A2 IV		89021	43268	
22	50 GAM	TARAZED	19 43 52.907	+10 29 24.38		+2.717	K3 II		186791	105223	
465	19 -Q	TAYGETA	03 42 13.572	+24 18 42.91		+4.239	B6 V		23338	76140	
83	16 ZET-1 CMC	TEGHINE (AB)	08 09 20.753	+17 47 55.93	L	+5.05C	F8 V		68256/1AB	97645	C
84	16 ZET-2 CMC	TEGHINE (C)	08 09 21.213	+17 47 59.39		+6.200	DF2		68255C	97646	D
426	58 OME	TEREBELLUM I	19 52 46.744	-26 26 01.47		+4.70C	DG5		188376	188722	
405	59 -3	TEREBELLUM II	19 53 52.375	-27 19 14.61		+4.520	GK3		189603	188742	
404	60 A	TEREBELLUM III	19 55 54.576	-26 19 51.29		+4.83C	G55		189005	188778	
406	62 -C	TEREBELLUM IV	19 59 35.193	-27 51 01.64		+4.503	M4 III		199763	188844	
73	17 KAP-2 BOO	TERTIUS ASELLUS (A)	14 11 41.518	+52 01 23.55		+4.51C	A7 IV		124675A	29046	D
72	17 KAP-1 BOO	TERTIUS ASELLUS (B)	14 11 40.271	+52 01 15.47		+6.698	F2 V		124674B	29045	D
353	36 UPS	THABIT	05 29 31.607	-07 20 12.87		+4.616	B0 V		36512	132222	

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
2	49 A AND	T-HAIL	01 27 05.505	+46 45 00.17		+5.260		K0 III		3057	37275	
245	52 UPS-2 ERI	THEEMIN	04 33 36.315	-30 39 48.98		+3.81C		K0 III		29291	195146	
67	49 DEL 300	T-HISA	15 13 29.117	+33 30 01.20		+3.479		G8 III		135722A	64589	D
204	11 ALP DRA	T-HUBAN	14 03 01.963	+64 36 51.57		+3.652		A0 III		123295	16273	
395	110 OMI PSC	TORCULAR	01 42 44.368	+08 54 24.64		+4.258		G8 III		10761	110110	
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.895	-05 25 16.22	N	+4.61C		G6 +80.5		37020-348CD	132314	D
208	63 EPS DRA	TYL	19 48 21.063	+70 08 26.55		+3.833		G8 III		188119A8	9540	D
101	16 OMI-1 CMA	UDRA	06 52 03.762	-24 07 12.87		+3.86C		K3 IAB		50877	172542	
280	31 TAU-1 WYA	UKDAH I	09 26 36.618	-02 32 59.04		+4.597		F6 V		81997A	136895	
281	32 TAU-2 WYA	UKDAH II	09 29 25.987	-00 57 47.98		+4.558		A3 III		82446	136932	
270	33 A WYA	UKDAH III	09 32 02.913	-05 41 26.92		+5.550		GK1 III		82970	136964	
276	35 10T WYA	UKDAH IV	09 37 18.152	-00 54 53.79		+3.861		K2 III		83618	137035	
949	24 ALP SCP	UNUKAL-HAI	15 41 48.151	+06 34 53.93		+2.586		K2 III		140573A	121157	D
433	101-2 SCO	VANANT	17 46 41.171	-40 04 35.09		+4.8CC		CA3		161312A	228466	D
170	R CRB	VARIABLES CORONAE	15 46 30.695	+28 19 32.24		+5.300	*	F PEP	*	141527	84015	V
310	3 ALP LVR	VEGA	18 35 14.655	+38 44 09.68		+C.044		A0 V		172167A	67174	D
529	47 EPS VIR	VINDEMIATRIX	12 59 41.210	+11 13 38.90		+2.929		G9 III		113226	100384	
252	55 DEL GEM	WASAT	07 17 08.265	+22 04 34.08		+3.526		FU IV		56386A3	79294	D
163	BET COL	WAZN	05 49 11.727	-35 47 09.73		+3.110		K2 III		33425	196240	
96	25 DEL CMA	WEZEN	07 06 21.436	-26 18 45.36		+1.878		F8 IA		546C5	173047	
324	2 EPS OP-4	YED POSTERIOR	16 15 40.348	-04 34 13.57		+3.233		G9 III		146731	141086	
323	1 DEL OP-4	YED PRIOR	16 11 43.325	-03 34 01.41		+2.723		M1 III		146051	141052	
519	23 DEL UMI	YILDUN	17 48 18.338	+36 36 34.78		+4.347		A1 V		166205	2337	
531	15 ETA VIR	ZANIAH	12 17 20.761	-00 23 20.65		+3.88C		A2 V		107259	138721	D
231	34 GAM ERI	ZAURAK	03 55 41.672	-13 38 58.17		+2.953		M0 III		25025A	149283	
526	5 BET VIR	ZAVIJAVA	11 48 05.387	+02 02 47.61		+3.618		F8 V		102870	119076	
233	13 ZET ERI	ZIBAL	03 13 24.143	-09 00 15.30		+4.798		A7 M		20320	130387	
287	68 DEL LEO	ZOSMA	11 11 27.585	+20 47 52.67		+2.562		A4 V		97603	81727	D
96	49 101-2 CNC	ZUBANAH (A)	08 43 40.514	+28 56 39.19		+4.030		G8 II		74739A	80416	D
85	48 101-1 CNC	ZUBANAH (B)	08 43 38.685	+28 56 51.95		+6.57C		A3 V		74738B	80415	D
305	44 ETA LIB	ZUSAN AL KRAVI	15 41 15.348	-15 30 53.77		+5.400		F0 III		140417	159466	
307	20 SIG LIB	ZUBEN ACRABI	15 01 08.247	-25 05 12.27		+3.318		M4 III		133216	183139	
302	8 ALP-1 LIB	ZUBENELGENUBI I	14 47 54.359	-15 47 25.90		+5.153		F5 IV-V		130819B	158336	D
303	9 ALP-2 LIB	ZUBENELGENUBI II	14 48 06.447	-15 50 06.59		+2.747		A3 V		130841A	15894C	D
304	27 BET LIB	ZUBENESC-HAMALI	15 14 18.732	-03 11 58.93		+2.612		B8 V		135742	140430	
306	21 NU LIB	ZUBEN-HAKRABI	15 03 49.529	-16 03 51.08		+5.28C	*	K5 III	*	133774	159028	
232	72 LEO	ZUBRAH	11 12 32.837	+23 22 05.98		+4.625		M3 III		97778	81736	

TABLE 5

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
3	21 ALP AND	ALPHERATZ	00 05 47.841	+28 49 52.12		+2.074	B8 III P		358	73765	D
117	11 BET CAS	CAP4	00 06 29.735	+58 52 26.77		+2.275	F2 IV		432AB	21133	D
359	88 GAM PEG	ALGENIB	00 10 39.447	+14 54 20.57		+2.827	B2 IV		886	91781	D
147	8 TOT CET	SCHEMALI	00 16 52.784	-09 06 03.44		+3.540	K2 III		1522A	128694	D
386	KAP P-E	ALRIAL I	00 23 44.906	-43 57 25.67		+3.929	A7 V N		2262	215092	
383	ALP P-E	ANKAA	00 23 49.129	-42 34 38.55		+2.390	K0 III		2261	215093	DV
116	ALP CAS	SC-EDAR	00 37 39.313	+56 15 49.60		+2.223	K0 II-III		3712AB	21609	
387	MU P-E	ALRIAL II	00 38 58.331	-46 21 33.10		+4.593	G8 III		3919	215194	
140	16 BET CET	DENEB KAITOS	00 41 04.811	-18 15 39.78		+2.028	K1 III		4128	147420	
158	17 PHI-1 CET	ALNITHAM I	00 41 40.021	-10 52 53.49		+4.750	K0 III		4188	147423	
392	63 DEL PSC	KUTON I	00 46 05.113	+07 19 47.93		+4.430	K5 III		4656	109474	
159	19 PHI-2 CET	ALNITHAM II	00 47 37.288	-10 54 47.65		+5.189	F8 V		4813	147470	
160	22 PHI-3 CET	ALNITHAM III	00 53 31.022	-11 32 13.09		+5.300	K4 III		5437	147519	
118	27 GAM CAS	NAVI	00 53 40.324	+60 26 47.38		+2.570	B0 IV E		5344B	11482	D
161	23 PHI-4 CET	ALNITHAM IV	00 56 13.583	-11 38 58.40		+5.790	GG7		5722	147546	D
389	BET P-E	ALRIAL III	01 03 51.357	-46 59 05.78	L	+3.300	G8 III		6554B	215365	D
122	30 MU CAS	AL MARFAK	01 04 55.686	+54 40 32.96		+5.163	G5 V P		6362	22024	
145	31 ETA CET	DENEB ALGENUBI	01 06 04.420	-10 26 45.57		+3.437	K3 III		6805	147632	D
145	43 BET AND	MIRACH	01 06 55.456	+35 21 21.74		+2.060	M0 III		6860	54471	D
121	33 THE CAS	MARFAK	01 08 02.554	+54 53 04.32		+4.332	A7 V		6961	22070	D
393	86 ZET-1 PSC	KUTON II	01 11 06.933	+07 19 41.34		+5.235	F0 IV-V		7344A	109739	D
394	86 ZET-2 PSC	KUTON III	01 11 08.346	+07 18 52.03		+6.270	F6 V		7345BC	169740	D
388	NU P-E	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.953	F8 V		7570	215428	D
6	46 XI AND	AD-HIL	01 19 23.103	+45 16 07.87		+4.867	K0 III-IV		8207	37155	C
146	45 THE CET	AL NAYMAT I	01 21 31.363	-08 26 27.16		+3.603	K0 III		8512A	129274	
119	37 DEL CAS	RUC-BAH	01 22 31.498	+59 58 34.36		+2.677	A5 V		8538	22268	
385	6AM P-E	ALRIAL V	01 26 11.776	-43 34 25.94		+3.400	K5 II		9053	215516	
2	49 A AND	THAIL	01 27 05.505	+46 45 00.17		+5.260	K0 III		9057	37275	
1	51 AND	NEMBUS	01 34 54.636	+48 22 32.66		+3.570	K3 III		9927	37275	
229	ALP ERI	ACHERNAR	01 35 51.307	-57 29 24.93		+0.450	B5 V		10144	232481	
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496	G8 V P		10700	147986	
395	110 OH1 PSC	TORCULAR	01 42 44.968	+08 54 24.64		+4.258	G8 III		10761	110110	DV
514	1 ALP UMI	POLARIS	01 48 48.786	+89 01 43.74		+2.500	F8 I8		8890A	308	
144	55 ZET CET	BATEN KAITOS	01 48 59.447	-10 34 52.90		+3.723	K2 III		11353	148059	
479	2 ALP TRI	CAPUT TRIANGULI	01 50 13.440	+29 20 10.14		+3.413	F6 IV		11443	74996	
120	45 EPS CAS	SEGIN	01 50 46.378	+63 25 25.89		+3.370	B3 IV P		11415	12031	
36	5 GAM-1 ARI	MESARTIM (B)	01 50 46.855	+19 03 08.11		+4.673	A1 P		11502B	92680	D
37	5 GAM-2 ARI	MESARTIM (A)	01 50 46.872	+19 02 57.87		+4.594	B9 V		11503A	92681	D
35	6 BET ARI	SHERATAN	01 51 52.340	+20 33 52.09		+2.626	A5 V		11636	75012	
157	59 UPS CET	AL NAYMAT III	01 57 27.392	+02 31 23.04		+3.590	M1 III		12274	167471	D
390	113 ALP PSC	ALRESCHA	02 00 49.177	+42 05 27.01		+2.170	A M+A2 P		12446/7AB	110291	D
5	57 GAM-1 AND	ALMAC	02 04 20.917	+23 13 37.07		+2.009	K3 II		12533A	37734	D
34	13 ALP ARI	TAMAL	02 06 33.579	+34 45 06.52		+2.997	K2 III		12929	75151	D
480	4 BET TRI	MIZAN	02 10 20.747	+08 36 47.36		+4.160	G8 II		13161	55306	
150	65 XI-1 CET	AL KAFF AL JID-MAH I	02 14 32.316	+57 17 09.57		+5.990	G5 II		13611	110408	D
381	7 CHI PER	MISAM AL THURAYYA I	02 15 42.013	+56 56 22.44		+6.645	B2 IA		13994A	23149	D
371	-H PER	MISAM AL THURAYYA II	02 16 49.045	-03 12 13.39		+2.000	GM6 E		14143A	23182	D
152	68 OH1 CET	MIRA	02 23 31.955	-12 30 54.30		+4.980	89 V		14366AP	129825	DV
154	72 RHO CET	SADR AL KAITOS I	02 25 29.791	+08 14 13.15		+4.271	89 III		15130	148385	
151	73 XI -2 CET	AL KAFF AL JID-MAH II							15318	110543	

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
155	76 SIG	CET	02 29 42.948	-15 27 47.46	+4.749	F5	IV-V	15798	148445	
142	82 DEL	CET	02 36 59.585	+00 06 50.00	+4.654	B2	IV	16582	110665	D
143	83 EPS	CET	02 37 08.592	-12 05 00.36	+4.937	F5	IV-V	16620A8	148528	D
30	33 ARI	ARI	02 37 45.345	+26 50 50.75	+5.295	A3	V	16628A	75510	D
41	34 MU	ARI	02 39 32.488	+19 47 58.69	+5.660	AD	IV-V	16911	93062	D
31	35 ARI	ARI	02 40 30.651	+21 23 44.29	+4.850	B3	V	16908	75532	
141	86 GAM	CET	02 40 42.397	+03 01 34.05	+3.459	A2	V	16970A8	110707	D
153	89 PI	CET	02 41 44.470	-14 04 10.17	+4.235	B7	V	17051	148575	
149	87 MU	CET	02 42 14.102	+09 54 15.02	+4.260	FO	IV	17094	110723	
32	39 ARI	ARI	02 44 55.469	+29 02 26.66	+4.513	K1	III	17361	75578	
42	42 PI	ARI	02 46 29.805	+17 15 27.06	+5.340	B6	IV	17543	93127	D
375	15 ETA	PER	02 47 01.935	+55 41 22.43	+3.767	K3	IB	17506A	23655	D
33	41 -C-1	ARI	02 47 02.036	+27 03 20.53	+3.610	B8	V	17573	75596	D
243	2 TAU-2	ERI	02 48 46.150	-21 12 32.91	+4.763	K0	III	17824A	168094	D
43	46 RHO	ARI	02 53 36.479	+17 49 30.02	+5.500	DF5		19256	93195	
234	3 ETA	ERI	02 53 58.952	-09 05 45.89	+3.887	K1	III-IV	19322	130197	
379	22 PI	PER	02 55 33.275	+39 27 50.67	+4.697	A2	V	18411	56047	
39	48 EPS	ARI	02 56 20.825	+21 08 29.91	+4.638	A2	V	18515/0A8	75673	D
235	THE-1	ERI	02 56 21.882	-40 30 15.15	+3.264	A3	V	18622A	216113	D
236	THE-2	ERI	02 56 22.578	-40 30 14.34	+4.263	A2	V	18623B	216114	D
148	91 LAM	CET	02 57 01.871	+09 42 31.54	+4.637	B5	III	18604	110889	
240	8 RHO-1	ERI	02 58 42.365	-07 51 31.98	+5.745	DG6		18784	130243	
139	92 ALP	CET	02 59 39.744	+03 53 41.15	+2.517	M2	III	18884	110920	
241	9 RHO-2	ERI	03 00 14.892	-07 52 51.43	+5.310	S66		18953A8	130254	D
242	10 RHO-3	ERI	03 01 48.952	-07 47 43.01	+5.297	A3		19107	130269	
380	25 RHO	PER	03 01 57.795	+38 38 52.86	+3.200	M4	II-III	19058	56138	V
373	26 BET	PER	03 04 58.356	+40 45 52.46	+2.200	B8	V	19356A	38591	DV
376	27 KAP	PER	03 06 06.756	+44 40 10.21	+3.353	K0	III	19476A	38609	D
382	28 ONE	PER	03 08 03.167	+39 25 23.39	+4.613	K0	III	19656	56224	
38	57 DEL	ARI	03 08 45.885	+19 32 20.22	+4.350	K2	III	19767	93328	
40	58 ZET	ARI	03 12 01.326	+20 51 37.93	+4.997	A0	IV-V	20150	75810	
233	13 ZET	ERI	03 13 24.143	-09 00 15.50	+4.798	A7	M	20320	130387	
372	33 ALP	PER	03 20 49.441	+49 41 06.04	+1.803	F5	IB	20902	38787	
232	23 DEL	ERI	03 40 51.035	-09 55 53.05	+3.530	K0	IV	23249	130686	
378	38 OMI	PER	03 41 10.598	+32 07 53.47	+3.929	B1	III	23190A8	56673	D
457	16 TAU	TAU	03 41 49.528	+24 08 01.54	+5.455	B7	IV	23288	76126	
458	17 TAU	TAU	03 41 54.055	+23 57 27.82	+3.702	B6	III	23302	76131	
465	19 -G	TAU	03 42 13.572	+24 18 42.91	+4.298	B6	V	23338	76140	
459	20 TAU	TAU	03 42 50.756	+24 12 47.01	+3.979	B7	III	23408	78155	
460	21 TAU	TAU	03 42 55.370	+24 24 00.00	+5.757	B8	V	23432	76159	
461	22 TAU	TAU	03 43 03.846	+24 22 24.39	+6.430	B9.5V		23441	76164	
462	23 TAU	TAU	03 43 21.195	+23 47 38.99	+4.176	B6	IV NN	23480	76172	
471	25 ETA	TAU	03 44 30.424	+23 57 07.57	+2.970	B7	III	23630A	76199	D
464	27 -F	TAU	03 46 11.030	+23 54 07.66	+3.626	B8	III	23850A8	76228	D
463	28 BU	TAU	03 46 12.391	+23 59 07.56	+5.047	B9	P	23862	76229	
374	44 ZET	PER	03 50 58.959	+31 44 12.55	+2.850	B1	IB	24398A8	56799	D
231	34 GAM	ERI	03 55 41.672	-13 38 58.17	+2.953	M0	III	25025A	149283	D
377	46 XI	PER	03 55 42.825	+35 33 56.50	+4.037	B5	V	24912	56856	
238	38 OMI-1	ERI	04 09 25.339	-06 57 59.74	+4.045	F2	II-III	26574	131019	D
239	40 OMI-2	ERI	04 12 58.161	-07 43 45.89	+4.433	K1	V	26965A	131063	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
247	41 UPS-4 ERI	BEEMIM I	04 16 00.036	-33 55 09.65	L	+3.553		B8.5V		27376A8	194902	D
468	54 GAM TAU	HYADUM I	04 16 56.651	+15 30 30.62		+3.635		K0 III		27371	53868	D
477	52 PHI TAU	ALKALBAIN I	04 17 16.436	+27 13 58.39		+4.350		K1 III		27382A	76558	D
478	59 CHI TAU	ALKALBAIN II	04 19 32.079	+25 30 46.87		+5.35C		B9.5V		27638A	76573	D
469	61 DEL TAU	HYADUM II	04 20 02.844	+17 25 36.81		+3.757		K0 III		27697	93897	
246	43 UPS-3 ERI	BEEMIM II	04 22 09.4C9	-34 07 54.81		+3.35C		M1 III		28028	184984	
474	65 KAP-1 TAU	ALKALBAIN III	04 22 23.083	+22 10 51.94		+4.220		A7 V		27934	76601	
475	67 KAP-2 TAU	ALKALBAIN IV	04 22 26.032	+22 05 13.59		+5.28C		A7 V		27946	76602	
476	69 UPS TAU	ALKALBAIN V	04 23 18.680	+22 42 06.75		+4.289		FD III-IV		28024	76608	
470	74 EPS TAU	OCULUS BOREUS	04 25 41.585	+19 04 16.36		+3.534		K0 III		28305	93954	
472	77 THE-1 TAU	HYADUM III	04 25 42.982	+15 51 10.15		+3.949		K0 III		28307	93955	
473	78 THE-2 TAU	HYADUM IV	04 25 48.220	+15 45 41.80		+3.4C9		A7 III		28319	93957	
244	50 UPS-1 ERI	BEEMIM III	04 31 32.818	-29 51 55.49		+4.500		G6 III		28085	169570	
466	87 ALP TAU	ALDEBARAN	04 33 02.896	+16 24 37.51		+C.858		K5 III		25139AB	94027	D
245	52 UPS-2 ERI	T-HEEMIN	04 33 36.315	-30 39 48.99		+3.910		K0 III		29291	195148	D
228	53 -L ERI	SCEPTRUM	04 35 53.315	-14 24 01.60		+3.558		K2 III		25503AB	195781	
349	1 PI -3 ORI	TABIT	04 47 07.390	+06 52 32.26		+3.130		F6 V		30652	112106	
349	2 PI -2 ORI	AL TAJ I	04 47 53.047	+08 48 51.64		+4.355		A0 V		30739	112124	
350	3 PI -4 ORI	AL TAJ II	04 48 32.421	+05 31 16.34		+3.632		B2 III		30936	112142	
345	4 OMI-1 ORI	AL KUMH I	04 49 42.058	+14 10 08.31		+4.72C		M3 S		30959	94176	
351	8 PI -5 ORI	AL TAJ III	04 51 38.661	+02 21 37.24		+3.720		B2 III		31237	112197	
332	6 -G ORI	MANICA	04 52 00.355	+11 20 45.39		+5.15C		32 III		31283	94197	
347	7 PI -1 ORI	AL TAJ IV	04 52 08.440	+10 04 22.53		+4.670		A0 V		31295	94201	
346	9 OMI-2 ORI	AL KUMH II	04 53 33.423	+13 26 13.64		+4.672		K2 III		31421A	94218	D
50	3 IOT AUR	KABALINAN	04 53 43.982	+33 05 19.94		+2.632		K3 II		31398	57522	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 2C.04		+4.458		K2 II		31761	112281	
297	R LEP	CRIMSON STAR	04 57 19.727	-14 52 47.48		+6.000		C7 4E		31966	150058	V
46	7 EPS AUR	ALANZ	04 58 22.530	+43 45 05.36		+2.378		FC IA		31964	39955	DV
47	8 ZEI AUR	HAEDUS I	04 58 58.680	+41 00 17.79	L	+3.900		K5 II+8		32058/9	39966	
248	65 PSI ERI	KURSI AL JAUZAH I	04 59 00.759	-07 14 44.58		+4.795		B2 V		32245	131700	
48	10 ETA AUR	HAEDUS II	05 03 00.214	+41 10 08.38		+3.171		93 V		32630	40026	
230	67 BEI ERI	CURSA	05 05 23.365	-05 08 58.54		+2.775		A3 III		33111	131794	
237	69 LAM ERI	KURSI AL JAUZAH II	05 06 45.092	-08 43 00.32		+4.270		B2 IV		33328	131824	
389	PIC	KAPTEYN'S STAR	05 09 41.462	-44 59 53.25		+8.85C		M0 V		33793	217223	
52	11 MU AUR	AL-HIBA I	05 10 00.157	+38 25 38.27		+4.860		A M		33641	51755	
334	19 BEI ORI	RIGEL	05 12 07.990	-08 15 28.65		+C.153		B8 IA		34085A	131907	D
44	13 ALP AUR	CAPELLA	05 12 59.465	+45 56 59.04		+0.062		G8 III+F		34023AP	40186	D
51	15 LAM AUR	AL-HIBA II	05 15 37.211	+40 03 24.51		+4.710		60 V		34411A	40233	D
53	21 SIG AUR	AL-HIBA III	05 21 15.060	+37 20 26.65		+4.987		K4 III		35196	57981	D
339	28 ETA ORI	SAIF AL JABBAR	05 21 57.676	-02 26 29.58	L	+3.35C		K0.5V		35411AB	132071	D
335	24 GAM ORI	BELLATRIX	05 22 26.828	+06 18 21.71		+1.635		B2 III		35463	112740	D
467	112 BEI TAU	ELNATH	05 23 07.710	-28 34 01.74		+1.652		87 III		35457	77168	
299	9 BEI LEP	NYAL	05 26 06.090	-20 47 52.90		+2.935		G5 III		36079AB	170457	D
336	34 DEL-1 ORI	MINTAKA	05 29 27.017	-00 20 04.41		+2.20C		O9.5II		36466A	132220	D
353	36 UPS ORI	T-HABIT	05 29 30.607	-07 20 12.87		+4.616		B0 V		36512	132222	D
298	11 ALP LEP	ARNEB	05 30 31.394	-17 51 24.18		+2.591		F0 I8		36673A	150547	D
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 27 26.67		+4.410		B0 IV		36822	112914	
344	39 LAM ORI	MEISSA	05 32 22.513	+09 54 08.35		+3.351		O8 +80.5V		36861/2AB	112921	D
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.395	-05 25 16.22	N	+4.600		O6 +30.5		37020-3ABCD	132314	D
330	42 -C ORI	MIZAN BATIL I	05 32 55.055	-04 52 11.72	L	+4.55C		B2 III		37018AB	132320	D

TABLE 5 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY RIG-T ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RI. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HENRY DRAPER (H-D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
341	43 THE-2 ORI	MIZAN BATIL II	05 32 55.449	-05 26 50.72	N	+5.077	09.5V P		37041A	132321	D
342	44 IOT ORI	HATYSA	05 32 59.126	-05 56 28.26		+2.761	09 III		37043AB	132323	D
347	46 EPS ORI	ALNILAM	05 33 40.476	-01 13 56.30		+1.694	80 IA		37128	132346	
355	40 PHI-2 ORI	HKA	05 34 09.415	+09 15 54.81		+4.082	K0 III		37160	112558	
331	49 -0 ORI	MIZAN BATIL III	05 36 27.836	-07 14 21.42		+4.797	44 IV		37507	132411	
162	ALP COL	PHACI	05 37 50.211	-34 05 58.73		+2.630	88 V E		37795	196059	
339	50 ZET ORI	ALNIAT	05 38 14.043	-01 59 02.98		+1.749	09.518+83		37742/3A9	132444	D
300	13 GAM LEP	KURSI AL JABBAR	05 42 22.653	-22 27 48.30		+3.597	86 V		38393A	170759	D
343	53 KAP ORI	SAIPH	05 45 23.013	-09 41 09.45		+2.064	80.5IA		38771	132542	
301	15 DEL LEP	ARSH AL JAUAH	05 49 10.193	-20 52 55.23		+3.780	88 III		39364	170926	
163	BET COL	WAZN	05 49 11.727	-35 47 09.73		+3.110	K2 III		39425	196240	
333	58 ALP ORI	BETELGEUSE	05 52 27.609	+07 23 57.92		+0.800	M2 IAB		39801A	113271	CV
45	34 BET AUR	MENKALINAN	05 55 51.579	+44 56 40.69		+1.900	A2 V		40183AP	40750	D
49	37 THE AUR	MAHASIM	05 56 18.627	+37 12 40.05		+2.660	89.5V P		40312AB	58636	D
164	THE COL	KURDI I	06 05 48.671	-37 14 41.29		+5.010	89		42167	196514	
255	7 ETA GEM	PROFUS	06 11 51.508	+22 31 23.36		+3.200	M3 III		42995AE	78135	DV
165	KAP COL	KURDI II	06 14 46.278	-35 07 22.03		+4.360	88 III		43785	196043	
98	1 ZET CMA	FURUD	06 18 23.546	-30 02 23.86		+3.024	82.5V		44402	196698	
256	13 MU GEM	CALX	06 19 56.096	+22 32 27.98		+2.890	M3 III		44478A	78237	D
94	2 BET CMA	MIRZAN	06 20 02.980	+17 55 47.23		+1.980	B1 II-III		44743	151428	
46	PSI-1 AUR	DOLONES I	06 21 02.980	+19 56 59.91		+4.950	M0 IAB		44537	41076	
112	ALP CAR	CANOPUS	06 22 50.493	-22 40 03.45		+0.720	FU IA		45348	234480	D
257	18 NU GEM	NUCATAI	06 25 59.627	+20 14 44.06		+4.153	87 IV E		45542AP*	78423	
251	24 GAM GEM	AL+ENA	06 34 49.196	+16 26 37.40		+1.930	40 IV		47105	95912	
56	52 PSI-3 AUR	DOLONES II	06 35 20.296	+39 56 51.00		+5.200	88 III		47100	59319	
55	50 PSI-2 AUR	DOLONES III	06 35 45.703	+42 32 06.13		+4.786	K3 III		47174	41239	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.027	K5 III		47914	41288	
253	27 EPS GEM	WEBDUA	06 40 51.363	+25 10 56.92		+2.988	88 IB		48329A	78582	D
258	31 XI GEM	AL ZIRI	06 42 28.966	+12 57 04.31		+3.353	F5 IV		48737	96074	
93	9 ALP CMA	SIRIUS	06 42 56.713	-16 38 46.37		+1.457	A1 V+D A		48915AB	151881	D
58	56 PSI-5 AUR	DOLONES V	06 43 08.206	+13 37 45.74		+5.240	GO V		48682A	41330	D
59	57 PSI-6 AUR	DOLONES VI	06 43 50.596	+18 50 40.75		+5.210	K1 III		49781	41346	
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+11 50 32.27		+5.005	K3 III		49520	41380	
61	61 PSI-8 AUR	DOLONES VIII	06 50 31.472	+28 34 05.87		+6.240	B9 P		50204	59589	
101	16 OMI-1 CMA	UDRA	06 52 03.362	-24 07 12.87		+3.960	K3 IAB		50877	172542	
62	PSI-9 AUR	DOLONES IX	06 52 50.489	+46 20 23.28		+5.750	88 IV		50658	41446	
100	18 MU CMA	ISIS	06 53 49.103	-13 58 38.75		+4.390	G5 +A2		51250/1AB	152123	D
308	16 LYN	DOLONES X	06 53 58.335	+5 09 40.72		+4.895	A2 V		50973	41463	
97	26 EPS CMA	ADHARA	06 56 39.587	-28 54 10.24		+1.500	82 II		52099AB	172676	D
102	24 OMI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46		+3.010	B3 IA		53136	172839	
254	43 ZET GEM	HEKRUZA	07 01 09.627	+20 39 43.45		+3.700	F7 IB		52373A	79031	DV
95	23 GAM CMA	MIRZA	07 01 29.713	-15 33 26.79		+4.105	88 II		53244	152303	
96	25 DEL CMA	WEZEN	07 06 21.436	-26 18 45.36		+1.819	F8 IA		54605	173047	
252	55 DEL GEM	WASAT	07 17 08.265	+22 04 34.08		+3.526	FO IV		56986AB	79294	D
39	31 ETA CMA	ALUDRA	07 22 06.972	-29 12 16.04		+2.440	85 IA		59350	173651	
104	3 BET CMI	GOMEISA	07 24 26.357	+08 23 28.89		+2.894	88 V		59715	115456	
249	66 ALP GEM	CASIOR	07 31 24.654	+11 59 07.07		+1.590	A M+II V		60178/3AB	60198	D
103	10 ALP CMI	PRGCTON	07 36 41.117	+05 21 16.81		+0.357	F5 IV-V		61421AB	115756	D
399	-K-1 PUP	MERKAB (A)	07 36 46.323	-26 41 12.59		+4.509	S 88		61555A	174198	D
400	-K-2 PUP	MERKAB (B)	07 36 46.620	-26 41 19.88		+4.629	S 83		61556BC	174199	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAD* CAT. NO.	STAR PROP.
250	78 BET SEM	POLLUX	07 42 15.517	+28 08 55.11		+1.146		K0 III		62509A	79666	D
402	7 XI PUP	AMIDISNE	07 47 11.421	-24 43 55.22		+3.347		G3 IB		63700AB	17601	D
401	ZET PUP	NAOS	08 01 49.552	-39 51 40.83		+2.255		05 F		66811	198752	D
522	GAM-2 VEL	RESOR	08 07 59.465	-47 11 18.31		+1.833		07 +WC7		68273A	219504	D
83	16 ZET-1 CNC	TEGMEINE (AB)	08 09 20.753	+17 47 59.93	L	+5.050		F8 V		69256/7AB	97645	D
84	16 ZET-2 CNC	TEGMEINE (C)	08 09 21.213	+17 47 58.38		+6.210		DF2		68255C	97646	D
79	17 BET CNC	AL TARE	08 13 48.282	+09 20 27.73		+3.523		K4 III		69267	116569	D
87	19 LAM CNC	PIAUTOS	08 17 33.952	+24 10 52.39		+5.910		B9 V		70011	80113	
309	31 EPS	SHAKAH	08 19 25.154	+43 21 00.83		+4.245		K5 III		70272	42319	
114	1 EPS	AVICR	08 21 29.383	-59 20 52.98		+1.880		K0 II+B		71129/O	235932	
504	1 ONI UMA	MUSCLOA	08 26 07.631	+60 53 14.56		+3.347		G5 III		71369A	14573	
483	2 A	ALT-HIBA I	08 30 08.936	+65 19 03.93		+5.465		A M		72037	14590	D
505	3 PI -1 UMA	ALT-HIBA II	08 34 46.703	+65 11 44.92		+5.625		G0 V		72905	14609	
272	4 DEL HVA	MINAZAL I	08 35 00.594	+05 52 45.60		+4.143		A0 V		73262	116965	
506	4 PI -2 UMA	ALT-HIBA III	08 35 51.956	+64 30 16.82		+4.593		K2 III		73108	14616	
279	5 SIG HVA	MINKALSHUJA	08 36 08.671	+03 31 05.48		+4.435		K2 III		73471	116988	
82	41 EPS CNC	ALMALAF	08 37 35.068	+19 43 23.07		+6.300		A6 III		73731	98024	
80	43 GAM CNC	ASCCELLUS BOREALIS	08 40 23.762	+21 38 58.82		+4.670		A1 V		74198	80378	
275	7 ETA HVA	MINAZAL II	08 40 36.696	+03 34 45.66		+4.283		B3 V		74280	117050	
81	47 DEL CNC	ASCCELLUS AUSTRALIS	08 41 56.747	+18 20 21.83		+3.925		K0 III		74442	98087	
85	48 IOT-1 CNC	ZUBANAH (B)	08 43 38.685	+28 56 57.95		+6.570		A3 V		74738B	80415	D
86	48 IOT-2 CNC	ZUBANAH (A)	08 43 40.514	+28 56 39.19		+4.010		G8 II		74735A	80416	D
273	11 EPS HVA	MINAZAL III	08 44 07.755	+06 36 12.71	L	+3.365		G0 III+P7		74874AB	117112	D
278	13 RHO HVA	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347		A0 V		75137AB	117146	D
16	2ET HVA	MINAZAL V	08 52 45.092	+06 08 13.25		+3.108		G8 III		76294	117264	D
78	65 ALP CNC	ACUBENS	08 55 45.624	+12 03 05.07		+4.228		A M		76756	98267	D
498	9 IOT UMA	TALITHA	08 55 47.626	+48 14 22.05		+3.146		A7 V		76644A	42630	D
507	8 RHO UMA	ALT-HIBA IV	08 58 03.573	+67 49 35.21		+4.757		M3 IIIB		76827	14742	D
499	12 KAP UMA	KAFZATANIA	09 00 13.266	+47 21 20.79	L	+3.572		A0		77327AB	42661	D
508	11 SIG-1 UMA	ALT-HIBA V	09 04 01.898	+67 04 33.26		+5.147		K5 III		77800	14769	D
486	15 -F UMA	ALTAUD I	09 05 21.316	+51 48 28.27		+4.467		A M		78209	27136	D
509	13 SIG-2 UMA	ALT-HIBA VI	09 06 09.310	-43 13 47.60	C	+4.79E		F7 IV-V		78154AB	14788	D
524	LAM VEL	SUTAIL	09 06 29.235	+22 14 55.35		+2.240		K5 IB		78647AB	220878	D
88	77 XI CNC	NAH	09 06 49.121	+63 43 07.22		+5.140		K0 III		7851E	80666	D
510	14 TAU UMA	ALT-HIBA II	09 12 36.226	+54 13 47.19		+4.669		A7 M		78362/3A	14796	D
495	18 -E UMA	ALTAUD III	09 15 45.109	-59 30 59.63		+4.818		A5 V		79439	27191	
115	BET CAR	MIAPLACIOUS	09 12 36.226	+54 13 47.19		+1.679		A0 III		80007	250495	
523	KAP VEL	MARKER	09 20 33.853	-54 47 47.30		+2.493		F0 IB		80404	236808	
292	I KAP LEO	MINKARASAD	09 21 44.777	+26 23 55.32		+4.46C		B2 IV		81188	236891	D
271	30 ALP HVA	ALP-HARD	09 25 07.791	-08 26 27.47		+1.981		K3 III		81797	136871	D
280	31 TAU-1 HVA	UKDA-I	09 26 36.618	-02 32 58.04		+4.587		F6 V		81997A	136895	D
498	23 -H UMA	ALTAUD IV	09 27 36.565	+63 16 55.11		+3.656		F0 IV		81937A	14908	D
293	4 LAM LEO	ALTERF	09 28 52.248	+23 11 22.21		+4.310		K5 III		82308	80885	
281	32 TAU-2 HVA	UKDA-II	09 29 25.987	-00 57 47.99		+4.559		K3 III		92446	136932	D
497	25 THE UMA	ALTAUD V	09 29 31.489	+51 54 23.18		+3.177		F6 IV		82328AB	27289	
484	24 -O UMA	ALT-HIBA VII	09 30 05.838	+70 03 06.47		+4.552		G2 IV		82210	6837	D
270	33 A HVA	UKDA-I II	09 32 02.913	-05 41 26.52		+5.55C		SK1		82870	136964	
276	35 IOT HVA	UKDA-IV	09 37 18.152	-00 54 53.79		+3.893		K3 III		83618	137035	
277	38 KAP HVA	AL S-HARASIF I	09 37 54.469	-14 06 16.63		+5.055		B5 V		83754	155368	

TABLE 5 CONTINUED

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295	14 OMI	SUBRA	09 38 29.008	+10 07 14.64		+3.480	A2 +F6 II		83908/3A	98709	D
296	17 EPS	ALGENUBI	09 43 00.996	+24 00 15.62		+2.97C	G0 II		84441	81004	D
511	29 UPS	ALHAUD VI	09 47 27.102	+59 16 30.31		+3.794	F2 IV		84999A3	27401	D
512	30 PHI	ALHAUD VII	09 48 43.642	+54 17 56.59	L	+4.513	A3 S		85235A8	27408	D
294	24 MU	RASALAS	09 49 55.434	+26 14 36.08		+3.890	K2 III		85503	81064	D
290	30 ETA	AL JAB-4A	10 04 36.533	+17 00 26.17		+3.51C	A0 I8		87737	98955	D
283	32 ALP	REGULUS	10 05 42.647	+12 12 44.54		+1.351	B7 V		87901A	98967	D
299	36 ZET	ADAFERA	10 13 54.758	+23 40 01.34		+3.435	F0 III		89025	81265	D
500	33 LAM	TANIA BOREALIS	10 14 05.353	+43 09 53.54		+3.455	A2 IV		89021	43768	D
285	41 GAM-1	ALSTIEBA (A)	10 17 13.120	+20 05 42.86		+2.283	K0 III		89484A	81298	D
286	41 GAM-2	ALSTIEBA (B)	10 17 13.401	+20 05 39.69		+3.479 S	G0 III		89485B	81299	D
501	34 MU	TANIA ALSTRALIS	10 19 21.469	+41 45 06.25		+3.03C	M0 III		89758	43310	D
296	OMI	PRAECIPUA	10 50 31.231	+34 29 05.62		+3.903	K0 III-IV		94264	62297	D
179	7 ALP	ALMES	10 58 50.251	+56 39 03.12		+2.377	A1 V		95272	156375	D
490	48 BET	MERAK	11 00 39.570	+62 01 16.80		+1.753	K0 III		95418	27876	D
489	50 ALP	DUBHE	11 09 11.730	-22 33 08.99		+4.467	A2 III-IV		95689A8	15384	D
287	68 DEL	AL-SHARAF II	11 11 27.685	+20 47 52.67		+2.563	A4 V		97277	179624	D
291	70 THE	ZOSMA	11 11 37.066	+15 42 11.38		+3.343	A2 V		97633	81727	D
282	72	CHERTAN	11 12 32.837	+23 22 05.98		+4.625	A2 V		97778	81736	D
503	53 XI	ZUBRAH	11 15 31.162	+31 48 38.89		+3.903	G0 V		98230/1A3	62484	D
502	54 MU	ALULA AUSTRALIS	11 15 46.547	+33 22 02.56	C	+3.465	K3 III		99262A8	62486	D
212	1 LAM	ALULA BOREALIS	11 28 27.546	+69 36 26.09		+3.927	M0 III		100029	15532	D
513	63 CHI	GAUSAR	11 43 25.630	+48 03 24.16		+3.7C3	K0 III		102224	43886	D
284	94 BET	ALKAFAZAH	11 46 30.605	+41 51 05.80		+2.131	A3 V		102647A	99809	D
526	5 BET	DENEBOA	11 48 05.387	+02 47 61		+3.6C8	F8 V		102870	113076	D
482	64 GAM	ZAVIJAVA	11 50 06.169	+38 04 39.16		+6.453	G8 V P		103095	62738	D
491	174	FLYING STAR	11 51 12.566	+53 59 21.36		+2.413	A0 V		103287	23879	D
174	1 ALP	PRECCA	12 05 49.746	-24 27 00.13		+4.030	F2 V		105452	180505	D
178	2 EPS	ALC-113A	12 07 32.919	-22 20 30.12		+2.993	K3 III		105701	180531	D
492	69 DEL	MINKAR	12 12 57.584	+57 18 36.95		+3.310	A3 V		106591	28315	D
176	4 GAM	MEGREZ	12 13 13.643	-17 15 51.84		+2.585	B8 III		106625	157176	D
531	15 EIA	GIENAH	12 17 20.761	-00 23 20.65		+3.880	A2 V		107259	138721	D
181	ALP-1	ZANIAH	12 23 48.664	-62 49 15.45		+1.312	B1 IV		109248A	251904	D
182	ALP-2	ACRUX (A)	12 23 48.695	-62 49 22.28		+1.923 S	B3 N	*	109249B		D
168	15 GAM	ACRUX (B)	12 24 26.870	+28 32 46.07	B	+4.353	K1 III-IV		108381	82313	D
177	7 DEL	AL DAFIRAH	12 27 16.380	-16 14 14.14		+2.349	B9 V		108767A	157323	D
184	6AM	ALSORAB	12 28 22.727	-56 50 00.33		+1.66C	M3 II		108903A	240019	D
166	21 UU	KISSIN	12 28 30.830	+24 50 35.98		+5.455	A3 P		108945	82346	D
192	8 BET	CHARRA	12 31 22.289	+41 37 44.10		+4.266	G0 V		109358	42330	D
175	9 BET	KRAZ	12 31 45.342	-23 07 13.60		+2.666	G5 III		109379	180315	D
125	6AM	MU-LIFAIN	12 38 44.898	-48 41 07.32		+2.153	A0 III		110304A6	223603	D
527	29 GAM	PORRIMA	12 39 07.452	-01 10 31.58	C	+2.745	F0 V		110379/0A8	138917	D
183	BET	MIWOSA	12 44 56.537	-59 24 56.53		+1.265	B0.5IV		111123	240259	D
493	77 EPS	ALLOT4	12 51 50.084	+56 13 51.14		+1.790	A0 P		112185	28553	D
528	43 DEL	MIMELAUA	12 53 04.586	+03 40 07.60		+3.368	M3 III		112300	119674	D
90	12 ALP-1	COR CAROLI (B)	12 53 40.203	+38 35 03.82		+5.610	F0 V		1124128	63256	D
91	12 ALP-2	COR CAROLI (A)	12 53 41.478	+38 35 16.82		+2.882	A0 P		112413A	63257	D
529	47 EPS	VINDENIATRIX	12 59 41.210	+11 13 38.90		+2.829	G9 III		113226	100384	D
89		LA SUPERBA	13 03 37.463	+45 32 07.73		+5.6CC	K1 III	*	113847	44465	D

TABLE 5 CONTINUED

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167	42 ALP	COM	13 07 33.321	+17 47 36.25	L	+4.313	F5 V		114378/9AB	100483	D
494	79 ZET-1 UMA	DIADEN	13 21 54.916	+55 11 09.46		+2.270	A2 V		116656A	28737	D
495	79 ZET-2 UMA	MIZAR (A)	13 21 55.808	+55 10 56.63		+3.950	A2 M		116657B	28738	D
525	67 ALP	MIZAR (B)	13 22 33.301	-10 54 03.36		+0.968	A2 V		116658	157923	D
487	80 -G UMA	SPICA	13 23 13.477	+55 14 52.99		+4.003	A5 V		116842	28751	D
530	79 ZET	ALCOR	13 32 08.554	-00 20 27.51		+3.363	A3 V		116098	139420	D
496	85 ETA	HEZE	13 45 34.294	+49 33 44.13		+1.980	A3 V		120315	44752	D
69	8 ETA	ALKAID	13 52 18.168	+18 38 51.35		+2.676	G0 IV		121370	10766	D
126	8 ZET	MUPHRID	13 52 24.510	-47 02 34.87		+2.540	G2 IV		121263	224538	D
124	BET	BATEN KENTAURUS	14 00 16.510	-60 07 56.09		+6.610	B1 II		122451	252582	D
204	11 ALP	HADAR	14 03 01.363	+54 36 51.57		+3.652	A0 III		123299	16273	D
127	5 THE	T-HUBAN	14 03 43.877	-36 07 25.64		+2.075	M0 III		123135	205188	D
533	98 KAP	MENKENT	14 10 13.451	-10 02 30.80		+4.183	K3 III		124294	158427	D
72	17 KAP-1	ALGAFAR I	14 11 40.271	+52 01 15.47		+5.658	F2 V		124674B	29005	D
73	17 KAP-2	TERTIUS ASELLUS (B)	14 11 41.519	+52 01 23.55		+4.530	A7 IV		124675A	29046	D
64	16 ALP	TERTIUS ASELLUS (A)	14 13 22.750	+19 26 30.95		-0.050	K2 III		124897	100944	D
532	99 IOT	ARCTURUS	14 13 23.145	-05 45 46.19		+4.077	F7 III-IV		124850	139824	D
71	21 IOT	SYRMA	14 14 23.673	+51 35 45.93		+4.750	A7 V		125161A	29071	D
74	19 LAM	SECUNDUS ASELLUS	14 14 28.369	+46 19 01.94		+4.179	AU P		125162	44965	D
534	100 LAM	AULAD ALTAIBA	14 16 23.969	-13 08 30.89		+4.522	A8 M		126660	158489	D
536	105 PHI	KAMBALIA	14 23 29.610	+52 00 17.26		+4.045	F7 V		126660	29137	D
70	23 THE	PRIMUS ASELLUS	14 25 37.362	-02 00 17.26		+4.736	G2 III		12762	139951	D
66	27 GAM	ALGAFAR II	14 30 03.837	+38 31 34.12		+3.035	A7 III		12762	64203	D
123	ALP	SEGINS	14 36 11.453	-60 37 48.84		+0.055	G2 V40K1		128620/1AB	252638	D
535	107 MU	RIGIL KENTAURUS	14 40 25.283	-05 26 30.92		+3.893	F3 IV		129502	140030	D
68	36 EPS	RIGILAWA	14 42 48.137	+27 17 02.66		+2.373	A2 V40K1		129588/5AB	83500	D
63	38 -H	IZAR	14 47 31.671	+46 19 25.56		+5.710	D4		130945	45226	D
302	8 ALP-1	MERGA	14 47 54.959	-15 47 25.90		+5.152	F5 IV-V		130818	158836	D
303	9 ALP-2	ZUBENELGENUBI I	14 50 49.645	+74 21 35.58		+2.747	A3 V		130841A	158840	D
515	7 BET	KOCAB	15 00 49.645	+40 35 12.80		+2.073	K4 III		131973	8102	D
65	42 BET	NEKKAR	15 01 08.247	-25 05 12.27		+3.489	G8 III		133208	45337	D
307	20 SIG	ZUBEN ACRABI	15 01 08.247	-25 05 12.27		+3.318	M4 III		133216	183139	D
77	43 PSI	AULAD ALNAT-ALAT	15 02 18.094	+27 08 29.75		+4.523	K2 III		133582	83645	D
306	21 MU	ZUBEN YAKRABI	15 03 49.329	-16 03 51.08		+5.290	K5 III		133774	159028	D
67	49 DEL	T-IBA	15 13 29.117	+33 30 01.20		+3.479	G8 III		135722A	64589	D
304	27 BET	ZUBENESCHAMALI	15 14 18.732	-09 11 56.93		+2.612	B9 V		135742	140430	D
516	11 GAM-1	P-HERKAD MINOR	15 17 07.110	+72 00 19.09		+5.020	K4 III		136726	8207	D
517	13 GAM-2	P-HERKAD MAJOR	15 20 47.247	+72 00 42.97		+3.043	A3 II-III		137422	8220	D
75	51 MU -1	ALKALUROPS	15 22 35.995	+37 33 05.49		+4.305	F0 V		137391A	64686	D
211	12 IOT	EDASICH	15 23 48.741	+59 09 26.16		+3.256	K2 III		137759	28520	D
173	3 BET	NUSAKAN	15 25 45.944	+29 16 37.26		+3.658	F0 III		137909	83831	D
452	13 DEL-1	NASAK YAMANI I (B)	15 32 24.633	+10 42 12.66		+5.109	S DFO		138917B	101623	D
453	13 DEL-2	NASAK YAMANI I (A)	15 32 24.681	+10 42 17.82		+4.179	F0 IV		138918A	101624	D
172	5 ALP	ALP-HECCA	15 32 34.145	+26 52 54.75		+2.220	A0 V		139006	83893	D
76	54 PHI	CEGINUS	15 36 01.742	+40 30 55.00		+5.240	G8 III-IV		139641	45643	D
305	44 ETA	ZUBAN AL KRAVI	15 41 15.248	-15 30 53.77		+5.400	F0 III		140417	159466	D
449	24 ALP	UNUKAL-YAI	15 41 48.151	+06 34 53.93		+2.645	K2 III		140573A	121157	D
450	28 BET	NASAK SHAMITHA I	15 43 52.670	+15 34 37.42		+3.672	A2 IV		141003A	101725	D
520	16 ZET	AKFA FARKADAIN	15 45 47.812	+77 56 57.09		+4.303	A3 V		142105	8328	D
170	R	VARIABLI CORONAE	15 46 30.695	+28 18 32.24		+5.800	F PEP		141527	84015	V

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STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	V MAS.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
454	37 EPS	SCP	15 48 19.243	+04 37 36.95		+3.703	A		141795	121218	
443	5 RHO	SCC	15 53 47.567	-29 04 10.42		+3.883	B2 V		142689A	183957	C
451	41 GAM	SCP	15 54 08.455	+15 49 24.77		+3.941	F6 V		142960	101826	D
442	6 PI	SCO	15 55 49.301	-25 58 18.14		+2.857	B1 V		143018ABC	183987	
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.300	B0 V		143275	184014	
171	T	CRB	15 57 24.505	+26 03 35.04	L	+2.000	PEC	*	143454	84129	N
440	XI -1	SCO	16 01 36.899	-11 14 12.29		+4.160	F5 IV		144069/OAB	153665	D
441	XI -2	SCO	16 01 37.342	-11 14 09.07		+7.300	GG2			159666	D
429	8 BET-1	SCO	16 02 31.857	-19 40 12.45		+2.629	B0.5V		144217AB	153682	D
428	8 BET-2	SCO	16 02 31.857	-19 40 00.07		+4.900	B2 V		144218C	159683	D
447	9 ONE-1	SCO	16 03 52.659	-20 32 07.11		+3.363	B1 V		144470	184123	D
448	10 ONE-2	SCO	16 04 28.091	-20 44 08.53		+4.300	GG2		144608	184135	D
267	7 KAP-1	HER	16 05 48.989	+17 10 43.81		+5.000	G8 III		145001A	101951	D
438	NU -1	SCO	16 09 03.549	-19 19 17.45	L	+6.263	A0 IV		145010C	153763	D
439	NU -2	SCO	16 09 05.091	-19 19 56.20	L	+4.012	B2 IV-V		145502AB	153764	D
323	1 DEL	OP4	16 11 43.325	-03 34 01.41		+2.727	M1 III		146051	141052	D
324	2 EPS	OP4	16 15 40.348	-04 34 19.57		+3.233	G9 III		146791	141086	D
444	20 SIG	SCO	16 18 08.667	-25 28 26.14		+2.882	B1 III		147165A	184336	D
521	21 ETA	UMI	16 19 56.289	+75 52 16.64		+4.937	DAB		148049	8470	
265	20 GAM	HER	16 19 42.737	+19 16 09.32		+3.745	A9 III		147547A	102107	D
269	24 OME	HER	16 23 06.363	+14 09 39.24		+4.590	A0 P		148112A	102153	D
210	14 ETA	DRA	16 23 18.476	+61 37 37.10		+2.730	G8 III		148397AB	17074	D
427	21 ALP	SCO	16 26 20.206	-26 19 21.95	C	+1.080	M1 IB	*	148478/9AB	184415	D
264	27 BET	HER	16 28 04.105	+21 35 50.16	C	+2.783	G8 III		148856	84411	D
328	10 LAM	OP4	16 28 23.341	+02 05 31.06		+3.910	A1 V		148857AB	121658	D
445	23 TAU	SCO	16 32 45.506	-28 06 50.56		+2.832	B0 V		149438	184481	D
325	13 ZET	OP4	16 34 24.137	-10 29 02.81		+2.567	09.5V		149757	160006	D
481	ALP	TRA	16 43 21.059	-68 56 19.89		+1.935	K4 III		150798	253700	D
436	MU -1	SCO	16 48 28.679	-37 57 48.92		+3.140	31.5V	*	151990	208102	D
437	MU -2	SCO	16 48 56.599	-37 56 03.17		+3.560	B2 IV	*	151985	208116	D
519	22 EPS	UMI	16 51 00.305	+82 07 21.54		+4.280	35 III	*	153751A	2770	D
213	21 MU	DRA	17 04 17.357	+54 32 07.35	L	+4.920	F5		154905/AB	30239	D
326	35 ETA	OP4	17 07 30.461	-15 39 52.89	L	+2.430	A2.5V		155125AB	160332	D
209	22 ZET	DRA	17 08 38.146	+65 46 33.99		+3.177	B6 III		155763	17365	D
262	64 ALP-1	HER	17 12 21.948	+14 26 45.34		+3.184	M5 II		156014A	102680	D
263	64 ALP-2	HER	17 12 22.274	+14 26 43.71		+5.477	G5 III+F2		156015B	102681	D
266	65 DEL	HER	17 12 58.555	+24 53 49.79		+3.140	A3 IV		156164A	84951	D
329	40 XI	OP4	17 18 00.251	-21 03 35.72		+4.393	F2 V		156897AB	185296	D
327	42 THE	OP4	17 18 56.157	-24 57 05.20		+3.285	B2 IV		157056	185320	D
446	34 UPS	SCO	17 27 21.662	-37 15 28.57		+2.700	B3 IB		158408	200896	D
268	76 LAM	HER	17 28 42.947	+26 03 49.49		+4.400	K4 III		158899	85163	D
205	23 BET	DRA	17 30 12.009	+52 20 15.65		+2.755	G2 II		159161AB	30429	C
435	35 LAM	SCO	17 30 12.626	-37 04 09.63		+1.517	B1 V		159326	208954	D
214	24 NU -1	DRA	17 31 11.293	+55 13 04.07		+4.980	A M		159541B	30447	D
215	25 NU -2	DRA	17 31 16.719	+55 10 21.82		+4.377	A M		159560A	30450	D
203	27 -F	DRA	17 32 09.543	+68 10 01.20		+5.060	KU III		159966	17526	D
320	55 ALP	OP4	17 32 36.696	+12 35 41.92		+2.072	A5 III		159561	102932	D
431	THE	SCO	17 33 43.771	-42 58 05.15		+1.860	F0 IB		159532	228201	D
226	28 OME	DRA	17 37 14.348	+68 46 52.48		+4.800	F5 V		160922	17576	D
434	KAP	SCO	17 39 01.548	-39 00 22.76		+2.410	B2 IV		160578	209163	D

TABLE 5 CONTINUED
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NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
321	60 BEI OPH	CEBALRAI	17 41 00.041	+04 35 11.84		+2.771		K2 III		161036	122671	
224	31 PSI-1 DRA	OZIBAN I	17 42 49.282	+72 10 26.21		+4.554		F5 IV-V		162003A	8890	C
225	31 PSI-2 DRA	OZIBAN II	17 42 50.929	+72 10 55.39		+5.805		F8 V		1620049	8891	D
202	31 PSI-3 DRA	ALRUBAH	17 42 56.440	+73 09 15.34		+5.713		A0		161633	30538	
432	101-1 SCO	GIRIAB	17 44 05.100	-40 06 34.95		+3.029		F2 IA		161471A	228420	D
322	62 GAM OPH	MULIP-EN	17 45 23.119	+02 43 28.28		+3.738		A0 V		161868	122754	D
433	101-2 SCO	VANANT	17 46 41.171	-40 04 35.09		+4.800		CA3		161912A	228466	D
518	23 DEL UMI	YILDUN	17 48 18.338	+86 36 34.78		+4.347		A1 V		166205	2937	
216	32 XI DRA	GRUMIUM	17 52 39.700	+56 52 47.68		+3.737		K2 III		163588	30631	D
206	33 GAM DRA	ELTANIN	17 55 26.576	+51 29 38.53		+2.231		K5 III		164058A	30653	D
410	10 GAM SGR	ALNASL	18 02 35.678	-30 25 35.80		+2.930		K0 III		165135	209696	D
416	13 MU SGR	ALNAK	18 10 46.324	-21 04 25.46		+3.866		B8 IA P		166937A	186497	D
414	ETA SGR	NAHALWARIO	18 14 14.573	-36 46 43.49		+3.113		M3 II		167618A	209957	D
411	19 DEL SGR	KAUS MEDIA	18 17 47.559	-29 51 04.68		+2.635		K2 III		168454A	186681	D
412	20 EPS SGR	KAUS AUSTRALIS	18 20 51.199	-34 24 36.94		+1.835		B9 IV		169022A	210091	D
222	43 PHI DRA	ALD-IBA	18 21 28.505	+71 18 42.23	L	+4.210		AD P		170000A	9084	D
223	44 CHI DRA	ALA-AKAN	18 21 57.480	+72 42 42.15		+3.563		F7 V		170153	9087	
319	2 MU LYR	AT-FAR	18 22 34.868	+39 28 43.85		+5.110		A3 III		169702	66943	
415	22 LAM SGR	KAUS BOREALIS	18 24 53.059	-25 27 04.19		+2.830		K2 III		169916	186841	D
310	3 ALP LYR	VEGA	18 35 14.655	+38 44 09.68		+0.044		AD V		172167A	67174	
422	27 PHI SGR	NAHALSADIRAH I	19 42 31.962	-27 02 38.48		+3.177		B8 III		173300	187239	D
313	4 EPS-1 LYR	DOUBLE DOUBLE I (B)	18 42 46.865	+39 37 00.09		+6.001	S	A4		173582A	67309	D
314	4 EPS-1 LYR	DOUBLE DOUBLE I (A)	18 42 40.873	+39 37 00.09		+5.040	S	A2		173582A	67310	D
315	5 EPS-2 LYR	DOUBLE DOUBLE II	18 42 43.325	+39 33 33.59	L	+4.535		A3 +A5		173607A	67315	D
316	6 ZET-1 LYR	NASR ALWAKI I	19 43 02.919	+37 33 06.28		+4.347		A M		173648A	67321	D
317	7 ZET-2 LYR	NASR ALWAKI II	18 43 08.779	+37 32 28.33		+5.130		FO IV		173649D	67324	D
311	10 BET-1 LYR	SHELIAR	18 48 13.935	+33 19 12.51		+3.400	*	B PE		17463879A	67451	DV
417	32 NU -1 SGR	AIN AL RAMI I	18 51 03.064	-22 48 29.54		+4.820		CK2		174974A	187426	D
418	35 NU -2 SGR	AIN AL RAMI II	18 52 05.766	-22 44 08.19		+4.930		K3 III		175190	187445	D
420	34 SIG SGR	NUNKI	18 52 09.927	-26 21 38.29		+2.063		B2 V		175191	187448	D
455	63 THE-1 SCA	ALYA (A)	18 53 43.976	+04 08 13.25		+4.622		A5 V		175638A	124068	D
456	63 THE-2 SCA	ALYA (B)	18 53 45.420	+04 08 07.70		+4.935		A5 N		175639B	124070	D
221	52 UPS DRA	AT-YAFI I	18 55 00.917	+71 13 50.82		+4.810		K0 III		176524	9283	D
312	14 GAM LYR	SULAFAT	18 57 04.294	+32 37 11.26		+3.250		B9 III		176437A	67663	D
24	13 EPS ABL	DANAB AL OKAB	18 57 21.118	+14 59 56.91		+4.020		K2 III		176411	104318	D
413	38 ZET SGR	ASCILLA	18 59 25.892	-29 57 12.79	L	+2.610		A2 III		176687A	187600	D
25	17 ZET ABL	DENEH OKAB	19 03 06.647	+13 47 15.86		+2.969		B9 V		177124	104461	D
29	16 LAM ABL	AL T-HALMAIN I	19 03 35.688	-04 57 32.74		+3.413		B8 V		177716	143021	D
421	40 TAU SGR	NAHALSADIRAH II	19 03 49.160	-27 44 43.14		+3.315		K1 III		178253	210990	D
169	ALP CRA	ALFECCA MERTIOIANA	19 06 04.345	-37 59 03.89		+4.100		A2 N		179524A	187756	D
419	41 PI SGR	AL BALDAH	19 12 47.450	-21 06 17.49	L	+2.994		F2 II-III		180163A	68010	D
318	20 ETA LYR	ALADFAH	19 12 28.542	-25 20 40.58	L	+4.950		B2 IV		179500A	187882	D
425	42 PSI SGR	AL KILADAH	19 12 28.542	-25 20 40.58	L	+4.950		DF5		180711	18222	D
207	57 DEL DRA	ALTAIS	19 12 32.624	+67 34 25.03		+3.067		G9 III		181276	31537	D
193	1 KAP CYG	FAHARIS I	19 15 56.786	+53 16 31.89		+3.773		KU III		181584	9366	D
220	60 TAU DRA	AT-YAFI II	19 16 31.472	+73 15 47.87		+4.455		K3 III		181454A	229646	D
408	BET-1 SGR	ARKAB PRIOR	19 19 02.816	-44 53 17.72		+4.010		B8 V N		181623	229654	D
409	BET-2 SGR	ARKAB PCSTIOR	19 19 36.611	-44 53 44.93		+4.280		FO III N		182564	182594	D
217	58 PI DRA	TAIS I	19 20 24.896	+65 37 05.16		+4.583		A2 IV		181869	229659	D
407	ALP SGR	RUKBAT	19 20 25.492	-40 42 43.10		+3.960		B9 III				

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NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (-D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
423	47 CHI-1 SGR	NAMAL SADRIRAH III	19 22 14.012	-24 36 26.63		+5.020		DA5		182369AB	188101	D
424	49 CHI-2 SGR	NAMAL SADRIRAH IV	19 22 28.169	-24 03 43.16		+5.42C		K4 III		182416	188105	
23	30 DEL AQL	ALMIZAN I	19 22 58.597	+03 00 48.98		+3.355		F0 IV		182640	124603	
537	6 ALP VUL	ANSER	19 26 37.410	+24 33 44.90		+4.42C		M0 III		183435	87261	
187	6 BET-1 CYG	ALBIREO (A)	19 28 42.222	+27 51 32.69		+3.080		K5 II+B		183912/3A	87301	D
188	6 BET-2 CYG	ALBIREO (B)	19 28 44.302	+27 51 12.44		+5.11C		B8 V		183914B	87302	D
219	61 SIG DRA	ALSAFI	19 32 27.585	+69 34 34.11		+4.686		K0 V		185144	18396	
28	41 TOT AQL	AL THALIMAIN II	19 34 08.666	-01 23 55.88		+4.36C		B5 III		184930	143597	D
403	5 ALP SSE	S-HAM	19 37 51.612	+17 53 51.21		+4.353		GO II		185758A	105120	D
190	18 DEL CYG	FAWARIS II	19 43 24.671	+45 00 28.23	C	+2.57C		B9.5 III		186822AB	48796	D
22	50 GAM AQL	TARAZED	19 43 52.907	+10 29 24.38		+2.717		K3 II		186791	105223	D
20	53 ALP AQL	ALTAIR	19 48 20.589	+08 44 05.71		+C.753		A7 IV-V		187642	125122	D
208	63 EPS	TYL	19 48 21.063	+70 09 28.55		+3.533		G8 III		189113AB	9540	D
26	55 ETA AQL	ALMIZAN II	19 49 55.525	+00 52 33.23		+3.50C		F6 IB		187929	125159	V
426	58 OME SGR	TEREBELLUM I	19 52 46.744	-26 26 01.47		+4.700		DG5		188376	188722	D
21	60 BET AQL	ALS-HAIN	19 52 51.383	+C6 16 45.84		+3.714		G8 IV		188512	125235	
405	59 -B SGR	TEREBELLUM II	19 53 52.975	-27 18 14.61		+4.520		GK3		188603	188742	
404	60 A SGR	TEREBELLUM III	19 55 54.576	-27 18 14.61		+4.83C		GS5		189005	188778	
406	62 -C SGR	TEREBELLUM IV	19 59 35.183	-27 51 01.64		+4.503		M4 III		189763	188844	
218	67 PHO DRA	TAIS II	20 02 35.527	+67 43 51.21		+4.513		K3 III		190940	18676	
27	65 THE AQL	ALMIZAN III	20 08 43.493	-00 58 16.06		+3.245		B9.5 III		191692	144150	
133	1 MAP CEP	AL ASHAN I	20 10 36.574	+77 33 42.36		+4.37C		B9 III		192507AB	9665	D
105	5 ALP-1 CAP	PRIMA GIEDI	20 14 52.647	-12 39 51.04		+4.240		G3 IB		192876A	163422	D
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 16.878	-12 42 04.49		+3.564		G9 III		192947AB	163427	D
185	34 P CYG	REVENATE OF THE SWAN	20 15 56.500	+37 52 35.55		+4.930		B P		193237	69773	N
111	6 NU CAP	AL SHAT	20 17 53.485	-12 55 04.49		+4.752		B9 V		191432A	163468	D
107	8 ET-1 CAP	DABIA MINOR	20 17 58.071	-14 56 38.31		+6.160		B9		193452AB	163471	D
108	9 BET-2 CAP	DABIA MAJOR	20 18 12.200	-14 56 28.57		+3.673		F8 V+D		1934557E	163481	D
189	37 GAM CYG	SADR	20 20 25.927	+40 05 44.58		+2.214		F8 IB		194033A	49528	D
356	ALP PAV	PEACOCK	20 21 42.289	-56 53 50.02		+1.92C		B3 IV		193924	246574	D
195	45 OME-1 CYG	RUCBA	20 28 30.540	+48 46 57.97		+4.350		B2 V		195556AB	49712	D
132	2 THE CEP	AL KIDR	20 28 44.678	+62 49 32.32		+4.217		A M		195725	18897	
201	2 EPS DEL	DENEB DULFIM	20 30 49.400	+11 07 55.83		+4.035		B6 III		195810	106230	
197	6 BET DEL	ROTANEV	20 35 12.206	+14 25 12.31		+3.563		F5 IV		196524AB	163316	D
196	9 ALP DEL	SVALOCIN	20 37 18.874	+15 44 04.30	C	+3.766		B9 V		196867A	106357	D
186	50 ALP CYG	DENEB	20 39 43.539	+45 06 03.12		+1.288		A2 IA		197345A	49941	D
200	11 DEL DEL	AL UKUD	20 41 07.413	+14 53 38.69		+4.920		A7 III P		197461	106425	D
191	53 EPS CYG	AL JANAH	20 44 11.168	+33 46 55.15		+2.457		K0 III		197989A	70474	D
131	3 ETA CEP	KABALFIRD	20 44 16.488	+61 38 38.86		+3.422		K0 IV		198149A	19019	D
198	12 GAM-1 DEL	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.14C		F7 V		197963B	166475	D
199	12 GAM-2 DEL	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.270		K2 IV		197964A	106476	D
11	2 EPS AOR	ALBALI	20 44 58.217	-69 40 48.21		+3.77C		A1 V		198001	14481C	D
16	6 NU AOR	ALBULAN I	20 49 57.474	-09 10 19.76		+4.723		A8 M		199743	144895	D
17	13 NU AOR	ALBULAN II	21 06 52.307	-11 34 31.13		+4.507		G8 III		201381	164182	D
192	64 ZET CYG	FAWARIS III	21 10 48.357	+30 01 15.51		+3.132		G8 III		202109	71070	D
227	8 ALP EOU	KITALP-4	21 13 19.440	+05 02 24.35		+3.914		50 III+45		202447/6	126662	D
128	5 ALP CEP	ALDERAMIN	21 17 23.181	+62 22 23.74		+2.439		A7 IV-V		203280A	19302	D
129	8 BET CEP	ALFIRK	21 28 01.326	+70 20 21.85		+3.18C		B2 III		205021AB	10057	D
9	22 BET AOR	SADALSUUD	21 29 55.649	-05 47 31.68		+2.878		GO IB		204867	145457	D
109	40 GAM CAP	NASHIRA	21 37 15.372	-16 53 21.05		+3.665		AB M		206088	164560	D

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194	80 PI -1 CYG	AZELFASE	21 40 18.352	+50 57 39.10		+4.665	B3 IV		205572	33665	C
360	8 EPS	ENIF	21 41 43.756	+09 39 41.69		+2.357	K2 IB		206778A	127029	DV
134	MU CEP	ERAKIS	21 41 58.501	+58 33 00.65		+3.390	M2 IA	*	206936A3	33693	D
110	49 DEL CAP	DENEK ALGEDI	21 44 16.932	-16 21 19.42		+2.810	A M	*	201058A	164644	
261	6AM GRU	DENEK HUT	21 50 54.450	-37 36 03.59		+3.000	B8 III		207971	213374	
18	31 OMI AGR	SADALMULK	22 00 43.657	-02 23 51.13		+4.745	B8 VE		209409	145837	D
135	17 XI -1 CEP	KUR-44 (B)	22 02 19.143	+64 23 03.30		+6.354	A M		209790B	19826	D
136	17 XI -2 CEP	KUR-44 (A)	22 02 20.440	+64 23 01.68		+4.454	A M		209791A	19827	D
366	22 MU PEG	FUM AL FARAS	22 03 09.442	-04 49 48.17		+4.840	K4 III		209747	127285	
259	34 ALP AGR	SADALMELIK	22 03 12.945	-00 33 48.59		+2.513	G2 IB		209750	145862	D
363	26 THE PEG	BI-HAM	22 05 05.486	-47 12 14.54		+1.743	B5 V		209952A	230992	
14	43 THE AGR	ANC-4A	22 07 40.600	+05 57 04.13		+3.515	A2 V		210418	127340	
9	48 GAM AGR	SADAL-81A	22 14 11.766	-08 01 58.75		+4.155	G8 III-IV		211391	145991	D
19	52 PI AGR	SEAT	22 19 04.420	-01 39 23.77		+3.845	A0 V		212061	146044	D
12	55 ZET-1 AGR	ALSAD (B)	22 22 43.381	+01 07 22.97		+4.660	B1 V PE		212571	127520	D
13	55 ZET-2 AGR	ALSAD (A)	22 26 15.261	-00 16 35.27		+4.493	F2 IV		213051A	146107	D
397	17 BET	FUM AL HUT I	22 26 15.513	-00 16 36.08		+4.323	F2 IV		213052B	146108	D
398	PSA	FUM AL HUT II	22 28 40.070	-32 36 11.08		+4.325	A0 V		213358A	213883	C
138	29 RHO CEP	KALBALRAI	22 28 40.358	-32 36 41.57		+7.753	S		213398	213884	D
15	63 KAP AGR	SITULA	22 29 27.436	+78 34 03.36		+5.520	A2	*	213796	10402	
361	42 ZET PEG	10MAP	22 35 10.023	-04 29 11.39		+3.350	K2 III		214376	146210	D
368	43 OMI PEG	SADALMATAR	22 39 24.377	+29 02 46.12		+4.307	A1 V		214323A	108103	
260	BET GRU	DENEK ALNA-IR	22 39 41.443	-47 08 46.20		+2.240	M3 II	*	214394	90717	
362	44 ETA PEG	MATAR	22 40 39.264	+29 57 33.42		+2.349	G2 II-III		214952	231258	D
364	47 LAM PEG	SADALNAZI	22 44 07.173	+23 18 07.41		+3.955	G8 II-III		215182A	90734	
367	46 XI PEG	SUUDALNUJUM	22 44 11.592	+11 54 57.24		+4.203	F7 V		215665	90775	D
365	48 MU PEG	SADALBARI	22 47 35.131	+24 20 13.72		+3.450	S8 III		215648AB	108165	D
10	76 DEL AGR	SKAT	22 51 59.901	-16 05 13.92		+3.266	A3 V		216131	90816	
396	24 ALP PSA	FOMAL-HALT	22 54 53.531	-29 53 15.79		+1.152	A3 V		216627	165375	
391	4 BET PSC	FUM AL SAMAKA-4	23 01 19.367	+03 33 01.75		+4.519	B5 VE		216956	191524	
358	53 BET PEG	SC-HEAT	23 01 20.770	+21 48 40.45	*	+2.560	M2 II-III	*	217091	127934	DV
357	54 ALP PEG	MARKA3	23 02 16.062	+14 56 09.11		+2.496	B9-5 III		217506A	50981	
137	33 PI CEP	AL AG-NAM II	23 06 18.107	+75 07 01.56		+4.401	G2 III		219045	109378	C
369	62 TAU PEG	SALM	23 18 09.505	+23 27 53.22		+4.580	A5 IV		21958AB	10629	
370	68 UPS PEG	ALKARAB	23 22 52.759	+23 07 43.20		+4.414	F8 IV		220061	91186	
130	35 GAM CEP	ERRAI	23 37 16.533	+77 21 11.73		+3.220	K1 IV		220557	91253	
									222404	10818	

TABLE 6

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
93	9 ALP CMA	SIRIUS	06 42 56.713	-16 38 46.37	C	-1.457	A1 VAND A		46915AB	151881	D
112	ALP CAR	CANOPUS	06 22 50.493	-52 40 03.45		-0.720	F0 IA		45348	234480	
64	16 ALP B00	ARCTURUS	14 13 22.750	+19 26 30.95		-0.05C	K2 III P		124897	160944	D
310	3 ALP LVR	VEGA	18 35 14.655	+38 44 09.69		+0.044	A0 V		172167A	67174	D
123	13 ALP CEN	RIGIL KENTAURUS	14 36 11.253	-60 37 48.84	C	+0.059	G2 VDK1	*	128620/1AB	252838	D
44	13 ALP AUR	CEPHEA	05 12 59.466	+45 56 59.04		+0.062	G8 III+P		34029AP	40186	D
334	19 BET ORI	RISELA	05 12 07.590	-08 15 28.65		+0.153	B8 IA		34085A	131907	D
103	10 ALP CMI	PROCYON	07 36 41.117	+05 21 16.81	C	+0.357	F5 IV-V		61421AB	115756	D
229	ALP ERI	AC-HERNAR	01 35 51.107	-57 29 24.93		+0.43C	B5 V		10144	232481	D
124	BET CEN	ADAR	14 00 16.510	-60 07 58.09		+0.610	31 II		122451	252582	D
20	53 ALP AQL	ALTAR	19 44 20.589	+08 44 05.71		+0.753	37 IV-V		181642	125122	D
333	58 ALP ORI	BETELGEUSE	05 52 27.809	+07 23 57.92		+0.800	M2 IAB	*	39801A	113271	D
466	87 ALP TAU	ALDEBARAN	04 33 02.896	+16 24 37.51		+0.958	K5 III		25135AB	94027	D
525	67 ALP VIR	SPICA	13 22 33.301	-10 54 03.36		+0.968	B1 V		116658	157923	D
427	21 ALP SCO	ANTARES	16 26 20.306	-26 19 21.95	C	+1.08C	M1 IB	*	148478/5AB	184415	D
250	78 BET GEM	POLLUX	07 42 15.517	+28 08 55.11		+1.146	K0 III		62509A	79666	D
396	24 ALP PSA	FOMALHAUT	22 54 53.531	-29 53 15.79		+1.152	A3 V		216956	191524	D
186	50 ALP CYG	DENES	20 39 43.539	+45 06 03.12		+1.248	A2 IA		197345A	49941	D
183	BET CRU	MIMOSA	12 44 47.337	-59 24 56.53		+1.265	80.5IV		111123	240259	D
181	ALP-1 CRU	ACRUX (A)	12 23 48.064	-62 49 19.43		+1.312	B1 IV		108248A	251904	D
283	32 ALP LEO	REGULUS	10 05 42.587	+12 12 44.54		+1.351	B7 V		81901A	98967	D
37	26 EPS CMA	AD-ARA	06 56 39.587	-28 54 10.24		+1.500	B2 II		52089AB	172676	D
249	66 ALP GEM	CASTOR	07 31 24.654	+31 59 59.07	C	+1.58C	A M+A1 V		60178/5AB	60198	D
435	35 LAM SCO	SHAULA	17 30 12.526	-37 04 09.63		+1.617	B1 V		158926	208954	D
335	24 GAM ORI	BELLATRIX	05 22 26.828	+06 18 21.71		+1.635	B2 III		35468	11274C	D
467	112 BET TAU	ELNATH	05 23 07.710	+28 34 01.74		+1.652	B7 III		35497	77168	D
184	GAM CRU	GACRUX	12 28 22.727	-56 50 00.33		+1.66C	M3 II		108903A	240019	D
113	BET CAR	MIAPLACIDUS	09 12 39.662	-69 30 39.63		+1.678	A0 III		80007	250495	D
337	46 EPS ORI	ALNILAM	05 33 40.476	-01 13 56.30		+1.694	B0 IA		37128	132346	D
259	ALP GRU	AL NA'IR	22 05 05.486	-47 12 14.54		+1.743	B5 V		209952A	230992	D
338	50 ZET ORI	ALNITAK	05 38 14.043	-01 58 02.98		+1.749	09.5IB+83		37742/3AB	132444	D
493	77 EPS UMA	ALIODA	12 51 50.084	+56 13 51.14		+1.790	A0 P		112185	28553	D
489	50 ALP UMA	DUBHE	11 00 39.570	+62 01 16.80		+1.793	K0 III		93689AB	15384	D
372	33 ALP PER	MIRFAK	12 23 48.595	-62 49 22.28	B	+1.823	F5 IB		20902	38787	D
522	ALP-2 CRU	ACRUX (B)	08 07 59.465	-47 11 18.31		+1.833	07 +HC7	*	108249B	219504	D
412	20 EPS SGR	REGOR	18 20 51.188	-34 24 36.94		+1.838	B9 IV		69273A	210091	D
96	25 DEL CMA	KEUS AUSTRALIS	07 06 21.436	-26 18 45.36		+1.86C	F8 IA		169022A	173047	D
431	THE SCO	SARGAS	17 33 43.371	-42 58 05.15		+1.86C	F0 IB		159532	228201	D
114	EPS CAR	AVIOR	08 21 29.383	-59 20 42.99		+1.890	K0 II+8		71129/0	235932	D
496	85 ETA UMA	ALKAID	13 45 34.294	+49 33 44.13		+1.88C	B3 V	*	120315	44752	D
356	ALP PAV	PEACOCK	05 55 51.579	+44 56 40.69		+1.900	A2 V		40183AP	40750	D
251	24 GAM GEM	ALHENA	06 34 49.396	+16 26 37.40		+1.930	B3 IV		193924	246574	D
481	ALP TRA	ATRIA	16 43 21.159	-68 56 19.89		+1.935	K4 IV		47105	95912	D
94	2 BET CMA	MIRZAM	06 20 29.789	-17 55 47.23		+1.980	B1 II-III		150758	253700	D
271	30 ALP HYA	ALPHARD	09 25 07.351	-08 26 27.47		+1.981	K3 III		81757	151428	D
152	68 OMI CET	MIRA	02 16 49.045	-03 12 13.39	*	+2.000	GM6 E	*	14386AP	129825	D
171	T CRB	BLAZE STAR	15 57 24.505	+26 03 35.04	*	+2.000	PEC	*	143454	84129	N
34	13 ALP ARI	4AMAL	02 04 20.317	+23 13 37.07		+2.009	K2 III		15929	75151	D

TABLE 6 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN. SEC.	DECLINATION DEG MIN SEC	P N	V MAG.	SPECTRAL CLASS	S N	HEARY DRAPER (+D) CAT. NO.	SAO CAT. NO.	STAR PROP.
140	16 BET	CET	00 41 04.811	-18 15 36.78		+2.028	K1 III		4128	147420	
40	43 BET	AND	01 06 55.456	+35 21 21.74		+2.060	M0 III		6860	54471	D
420	34 SIG	SGR	18 52 09.927	-26 21 38.29		+2.063	B2 V		175191	167448	
343	53 KAP	ORI	05 45 23.013	-09 41 09.45		+2.064	B0.5 IA		38771	132542	
320	55 ALP	OPH	17 32 36.696	+12 35 41.92		+2.072	A5 III		159561	102932	
585	7 BET	UMI	14 50 49.645	+74 21 35.58		+2.073	K4 III		131873	8102	D
3	23 ALP	AND	00 65 47.891	+28 48 52.12		+2.074	B8 III P		358	73765	D
127	5 THE	CEN	14 03 43.377	-36 07 29.64		+2.075	K0 III		123133	205188	D
284	94 BET	LEO	11 46 30.665	+14 51 05.80		+2.131	A3 V		102647A	99809	D
125	GAM	CEN	12 38 44.998	-48 41 07.32		+2.157	A0 III		110304AB	223603	D
5	57 GAM-1	AND	02 00 49.177	+42 05 27.01		+2.179 S	K3 II		12533A	37734	D
373	26 BET	PER	03 04 54.356	+40 45 52.46		+2.200 *	B8 V		19356A	38591	DV
336	34 DEL-1	ORI	05 29 27.017	-00 20 04.41		+2.200 *	09.5 II		36486A	132220	D
189	37 GAM	CVG	20 20 25.327	+40 05 44.58		+2.214	F8 IB		194093A	49528	D
116	18 ALP	CAS	00 37 39.313	+56 15 48.60		+2.223	K0 II-III		3712AB	21609	DV
172	5 ALP	CRB	15 32 34.145	+26 52 54.75		+2.230	A0 V		139006	83893	D
206	33 GAM	DRA	17 55 26.576	+51 29 36.53		+2.231	K5 III		164058AB	30653	D
524	LAM	VEL	09 06 09.310	-43 13 47.60		+2.240	K5 IB		78647AB	220878	D
260	BET	GRU	22 39 41.443	-47 08 48.20		+2.240 *	M3 II		214952	231258	
115	IOT	CAR	09 15 45.109	-59 03 53.70		+2.248	F0 IB		80404	236808	
401	ZET	PUP	08 01 49.552	-33 51 40.83		+2.255	05 F		66811	198752	
494	79 ZET-1	UMA	13 21 54.916	+55 11 09.46		+2.270	A2 V		118556A	28737	D
117	11 BET	CAS	00 06 29.315	+58 52 26.77		+2.275	F2 IV		432AB	21133	D
385	41 GAM-1	LEO	10 17 13.120	+20 05 42.85		+2.289 S	K0 III		89484A	81298	D
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.300	B0 V		143215	184014	D
68	36 EPS	BOO	14 42 48.137	+27 17 02.66		+2.373	A2 V+K0 II		129388/9AB	83500	D
490	48 BET	UMA	10 58 50.051	+56 39 03.12		+2.377	A1 V		95418	27876	
383	ALP	PHE	00 23 49.029	-42 34 39.55		+2.390	K0 III		2261	215093	D
360	8 EPS	PEG	21 41 43.756	+09 38 41.69		+2.397	K2 IB		206178A	127029	D
434	KAP	SCO	17 39 01.548	-39 00 22.76		+2.410	B2 IV		160578	209163	D
326	35 ETA	OPH	17 07 30.461	-15 39 52.89		+2.430	A2.5 V		155125AB	160332	D
491	64 GAM	UMA	11 51 12.566	+53 59 21.98		+2.433	A0 V		103287	21879	D
128	5 ALP	CEP	21 17 23.181	+62 22 23.74		+2.439	A7 IV-V		203290A	19302	D
99	31 ETA	CMA	07 22 06.972	-29 12 16.04		+2.440	B5 IA		59350	173651	D
191	53 EPS	CVG	20 44 11.168	+33 46 55.15		+2.457	K0 III		191985A	70474	D
523	KAP	VEL	09 20 33.853	-54 47 47.30		+2.493	B2 IV		81198	236891	D
357	54 ALP	PEG	23 02 16.062	+14 56 09.11		+2.456	B9.5 III		218045	108378	D
514	1 ALP	UMI	01 48 48.786	+89 01 43.74		+2.500 *	F9 IB		9990A	308	DV
139	92 ALP	CET	02 59 39.744	+03 53 41.15		+2.517	M2 III		18884	110920	D
126	ZET	CEN	13 52 24.510	-47 02 34.87		+2.540	B2 IV		121263	224538	D
358	53 BET	PEG	23 01 20.770	+27 48 40.45		+2.560	M2 II-III		219506A	90981	D
287	68 DEL	LEO	11 11 27.085	+20 47 52.67		+2.563	A4 V		97603	81727	D
325	13 ZET	OPH	16 34 24.137	-10 28 02.81		+2.567	09.5 V		149757	160006	D
118	27 GAM	CAS	00 53 40.324	+60 26 47.39		+2.570	B0 IV E		53944B	11482	D
298	11 ALP	LEP	05 30 31.394	-17 51 24.18		+2.581	F0 IB		36673A	150547	D
176	4 GAM	CRV	12 13 13.843	-17 15 51.84		+2.589	B8 III		108625	157176	D
413	38 ZET	SGR	18 59 25.892	-29 57 12.79		+2.600	A2 III		196687AB	187600	D
304	27 BET	LIB	15 14 18.732	-09 11 58.93		+2.612	B8 V		135742	140430	D
35	6 BET	ARI	01 51 52.740	+20 33 52.09		+2.626	A5 V		11636	75012	D
428	8 BET-1	SCO	16 02 31.507	-19 40 12.45		+2.629	B0.5 V		144217AB	159682	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HERBY DRAPER (40) CAT. NO.	SAO CAT. NO.	STAR PROP.
162	ALP	P-HACT	05 37 50.211	-34 05 56.73		+2.630	B8 V E		37255	196059	
449	24 ALP	UNUKALYAI	15 41 49.151	+06 34 53.93		+2.646	K2 III		190573A	121157	D
49	37 THE	MA-TASIM	05 56 18.627	+37 12 40.05		+2.660	B9-5V P		40312AB	58536	D
175	8 BET	KRAZ	12 31 45.342	-23 07 13.60		+2.666	G5 III		109379	180915	
69	8 ETA	MUP-ARID	13 52 18.168	+18 38 51.35		+2.676	G0 IV		121370	100766	
119	37 DEL	CAS	01 22 31.498	+59 59 34.36		+2.677	A5 V		9538	22268	
50	3 IOT	AUR	04 53 43.582	+33 05 15.54		+2.692	K3 II		31398	57522	
411	19 DEL	KABALINAN	18 17 47.554	-29 51 04.68		+2.695	K2 III		169454A	186681	D
446	34 UPS	KAUS MEDIA	17 27 21.662	-37 15 28.57		+2.700	B3 IB		158408	200896	
22	50 GAM	LESAT-H	19 43 52.807	+10 29 24.39		+2.717	K3 II		186791	105223	
323	1 DEL	TARZED	16 11 43.325	-03 34 01.41		+2.727	K1 III		186051	141052	
210	14 ETA	VED PRICR	16 23 18.476	+61 37 37.10		+2.730	G8 III		148387AB	17074	D
527	29 GAM	PORRINA	12 39 07.952	-01 10 31.59	C	+2.745	FO V		110375/0AB	138917	D
303	9 ALP-2	ZUBENELGENUBI II	14 48 06.447	-15 50 06.59		+2.747	A3 V		130841A	158840	D
392	44 IOT	HATISA	05 32 59.126	-05 56 28.26		+2.761	O9 III		37043AB	132323	D
321	60 BET	CEBALRAI	17 41 00.041	+04 35 11.84		+2.771	K2 III		161096	122671	
230	67 BET	CURSA	05 05 23.365	-05 08 56.54		+2.775	A3 III		31111	131794	
264	27 BET	KORNEP-KOROS	16 28 04.105	+21 35 50.16		+2.783	G8 III		149856	84411	
205	23 BET	RASTABAN	17 29 18.609	+52 20 15.65		+2.795	G2 II		155181AB	30429	D
359	88 GAM	ALGENIB	00 10 39.447	+14 54 20.57		+2.827	B2 IV		886	91781	
529	47 EPS	VINDEMIATRIK	12 59 41.210	+11 13 38.90		+2.828	G9 III		113226	100384	D
415	22 LAM	KAUS BOREALIS	18 24 53.059	-25 27 04.19		+2.830	K2 III		169916	186841	
110	49 DEL	DENEB ALGEDI	21 44 16.392	-16 21 18.42		+2.830	A M	*	207058A	164544	D
445	23 TAU	ALNIYAT II	16 32 45.906	-28 06 50.56		+2.832	80 V		149438	184481	D
299	9 BET	NIHAL	05 26 06.190	-20 47 52.90		+2.835	G5 III		36079AB	170577	D
374	44 ZET	ATIK	03 50 58.959	+31 44 12.55		+2.850	B1 IB		20398AB	58799	D
471	25 ETA	ALCYONE II	03 44 30.424	+23 57 07.57		+2.870	B7 III		23630A	76199	D
190	18 DEL	FAWARIK I	19 43 24.671	+45 00 28.23	C	+2.870	B9-5III		186882AB	48796	D
8	22 BET	SADALSULD	21 28 55.649	-05 47 31.68		+2.878	G0 IB		204967	145457	C
91	12 ALP-2	COR CAROLI (A)	12 53 41.478	+38 35 16.92		+2.882	AD P		112413A	63257	D
444	20 SIG	ALNIYAT I	16 18 08.667	-25 28 28.14		+2.882	B1 III		147165A	184336	D
256	13 MU	CALX	06 19 56.096	+22 32 27.99		+2.890	M3 III		44478A	78297	D
104	3 BET	GOMEISA	07 24 26.357	+08 23 25.89		+2.894	B8 V		58715	115456	D
419	41 PI	AL BALDAH	19 06 47.950	-21 06 17.49	L	+2.894	F2 II-III		178524ABC	187756	D
442	6 PI	NUR	15 55 49.371	-25 58 18.14		+2.897	B1 V		143018ABC	183987	D
7	34 ALP	SADALMELIK	22 03 12.345	-00 33 48.59		+2.933	G2 IB		209750	145862	D
177	7 DEL	ALSCAB	12 27 16.300	-16 14 14.14		+2.949	B9 V		108762A	157323	D
362	44 ETA	PEG	22 40 39.264	+29 57 33.42		+2.949	G2 II-III		215182A	90734	D
231	34 GAM	ERI	03 55 41.672	-13 38 56.17		+2.953	MO III		25025A	149283	D
288	17 EPS	LEO	09 43 00.986	+24 00 19.62		+2.970	G0 II		84441	81004	D
46	17 EPS	ALANZ	04 58 22.550	+45 05 36		+2.978	FO IA		31564	39955	D
253	27 EPS	GEM	06 40 51.363	+25 10 56.92		+2.989	G8 IB		48329A	78682	D
25	17 ZET	DENEB OKAB	19 02 35.679	+13 47 15.86		+2.989	B9 V		171724	104461	D
410	10 GAM	ALN4SL	19 02 35.679	-30 25 35.80		+2.990	K0 III		165135	209696	D
178	2 EPS	CRV	12 07 32.519	-22 20 30.12		+2.993	K3 III		108707	180531	D
480	4 BET	MINKAR	02 06 33.579	+34 45 06.52		+2.997	A5 III		13161	55306	D
261	8 GAM	DENEB-HUT	21 50 54.450	-37 36 01.59		+3.000	B8 III		201971	213374	D
98	1 IOT-1	FURUD	06 18 23.596	-30 02 23.86		+3.024	B2-5V		44402	196698	D
432	101-1	GIRIAB	17 44 05.142	-40 06 34.95		+3.028	F2 IA		161471A	228420	D
102	24 OMI-2	AL ZARA	07 00 56.142	-23 45 32.46		+3.030	B3 IA		53138	172839	D

TABLE 6 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DES MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (+D) CAT. NO.	SAO CAT. NO.	STAR PROP.
501	34 MU	UMA	10 19 21.469	+41 45 06.25		+3.03C	M0 III		89758	4331C	
66	27 GAM	BOO	14 30 03.837	+38 31 34.12		+3.036	A7 III		127162	64203	D
517	13 GAM-2	UMI	15 20 47.347	+72 00 42.97		+3.043	A3 II-III		137422	822C	
207	57 DEL	DRA	19 12 32.824	+67 34 25.03		+3.067	G9 III		180711	18222	
108	9 BET-2	CAP	20 18 12.210	-14 56 25.57		+3.073	F8 V+0		193495/1	183481	
187	6 BET-1	CVG	19 28 42.222	+27 51 12.44		+3.090	K5 II+8		183912/3A	87301	D
274	16 ZET	HYA	08 52 45.692	+06 08 13.25		+3.102	G8 III		76294	117264	
163	BET	COL	05 49 11.727	-35 47 09.73		+3.110	K2 III		39425	196240	
414	ETA	SGR	18 14 14.573	-36 46 43.49		+3.113	M3 II		167618A8	269957	D
436	MU-1	SCO	16 48 28.673	-37 57 48.92		+3.140	B1.5V		151890	208102	D
266	65 DEL	LER	17 12 58.555	+24 53 48.78		+3.146	A3 IV		156164A	84951	D
498	9 IOT	UMA	08 55 47.626	+48 14 22.05		+3.146	A7 V		76644A	42630	D
48	10 ETA	AUR	05 03 00.214	+41 10 08.38		+3.171	B3 V		32630	40026	
497	25 THE	UMA	09 29 31.489	+51 54 23.18		+3.177	F6 IV		82328A3	27289	D
209	22 ZET	DRA	17 09 38.146	+65 46 33.59		+3.177	B6 III		155763	17365	
422	27 PHI	SGR	18 42 31.962	-27 02 38.49		+3.177	B8 III		173300	187239	
129	8 BET	CEP	21 28 01.326	+70 20 21.85		+3.18C	B2 III		205021A8	10057	CV
262	64 ALP-1	VER	17 12 21.948	+14 26 45.34		+3.184	M5 II		156014A	10268C	D
349	1 PI-3	ORI	04 47 07.390	+06 52 32.26		+3.19C	F6 V		30652	112106	
192	64 ZET	CYG	21 10 48.357	+30 01 15.51		+3.192	G8 II		202109	71070	
380	25 RHO	PER	03 01 57.795	+38 38 52.86		+3.20C	M4 II-III		15058	56138	V
255	7 ETA	GEM	06 11 51.508	+22 31 23.36		+3.200	M3 III		42995A8	78135	DV
130	35 GAM	CEP	23 37 16.531	+77 21 11.73		+3.22C	K1 IV		222404	10816	
324	2 EPS	OP4	16 15 40.349	-04 34 19.57		+3.233	G9 III		146791	141086	
27	65 THE	AGL	20 08 43.453	-00 58 16.06		+3.245	B9.5III		191692	144150	
312	14 GAM	LYR	19 57 04.294	+32 37 11.25		+3.250	B9 III		176437A	67663	D
235	THE-1	ERI	02 56 21.882	-40 30 15.15		+3.264	A3 V		19622A	216113	D
10	76 DEL	ADR	22 51 59.901	-16 05 13.92		+3.266	A3 V		216627	165375	
327	42 THE	OP4	17 19 56.157	-24 57 05.20		+3.285	B2 IV		157056	185320	
211	12 IOT	DRA	15 23 48.741	+59 09 26.16		+3.296	K2 III		137759	29520	
384	BET	P-E	01 03 51.357	-46 59 05.78		+3.30C	S8 III		6595A8	215365	D
492	69 DEL	UMA	12 12 57.589	+57 18 36.95		+3.310	A3 V		106531	28315	
421	40 TAU	SGR	19 03 45.160	-27 44 43.14		+3.315	K1 III		177716	187683	
307	20 SIG	LIR	15 01 08.247	-25 05 12.27		+3.319	M4 III		133216	183139	
291	70 THE	LEO	11 11 37.066	+15 42 11.38		+3.343	A2 V		97633	59512	
402	7 XI	PUP	07 47 11.421	-24 43 59.22		+3.347	G3 IB		63700A3	174601	D
504	1 OMI	UMA	08 26 07.631	+60 53 14.56		+3.347	G5 III		71369A	14573	D
339	28 ETA	ORI	05 21 57.676	-02 26 29.59		+3.350	80.5V		35411A3	132071	D
258	31 XI	SEM	06 42 28.566	+12 57 04.31		+3.353	F5 IV		48737	96074	D
23	30 DEL	ADL	13 22 58.597	+03 00 49.98		+3.356	F0 IV		182640	124603	
530	79 ZET	VIR	13 32 09.554	-00 20 21.51		+3.362	A3 V N		118058	139420	
273	11 EPS	HYA	08 44 07.755	+06 36 12.41		+3.365	G0 III+7		74374ABC	117112	D
528	43 DEL	VIR	12 53 04.996	+03 40 07.60		+3.368	M3 III		112300	119674	
120	45 EPS	CAS	01 50 46.378	+63 25 23.89		+3.370	B3 IV P		11415	12031	
361	42 ZET	PEG	22 38 57.596	+10 34 11.39		+3.391	B8 V		214923A	168103	D
344	39 LAM	ORI	05 32 22.913	+09 54 03.35		+3.391	09 +80.5V		36951/2A8	112921	D
385	GAM	P-E	01 26 11.716	-43 34 25.94		+3.40C	K5 II		9053	215516	D
311	10 BET-1	LYR	18 49 13.935	+33 18 12.51		+3.400	B PE		174638/9A	67451	DV
473	78 THE-2	TAU	C4 25 48.220	+15 45 41.80		+3.402	A7 III		28315	93957	
479	2 ALP	TRI	01 50 13.440	+29 20 10.14		+3.413	F6 IV		11443	74996	

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	F N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
131	3 ETA CEP	KABALFIRO	20 44 16.488	+51 38 38.86		+3.422		K0 IV		198148A	19019	D
29	16 LAM AQL	AL T-ALIMAIN I	19 03 35.698	-04 57 32.74		+3.433		98 V		177756	143021	
289	36 ZET LEO	ADAFERA	10 13 54.759	+23 40 01.54		+3.435		F0 III		85025	81265	
145	31 ETA CET	DENES ALGENUBI	01 06 04.420	-10 26 48.57		+3.437		K3 III		6805	147632	
500	33 LAM UMA	TANIA BOREALIS	10 14 05.353	+43 09 53.54		+3.455		A2 IV		89021	43268	
141	86 GAM CET	KAFALGIDMA	02 40 42.397	+03 01 34.05		+3.458		A2 V		16970AB	110707	D
502	54 NU UMA	ALULA BOREALIS	11 15 46.947	+33 22 02.56		+3.465		K3 III		98262AB	62486	D
67	49 DEL 800	T-HIBA	15 13 29.117	+33 30 01.20		+3.478		G8 III		135722A	64589	D
286	41 GAM-2 LEO	ALGIEBA (B)	10 17 13.401	+20 05 35.69		+3.480	S	G7 III		89495B	81299	D
295	14 OMI LEO	SUBRA	09 38 29.008	+10 07 14.64		+3.489		A2 +F6 II		133208	98709	D
165	42 BET BCO	NEKKAR	15 00 03.684	+40 35 12.80		+3.489		G8 III	II		45337	
365	48 MU PEG	SADALBARI	22 47 35.191	+24 20 13.72		+3.490		G8 III		216131	90816	
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496		G8 V P		10700	147986	
26	55 ETA AQL	ALMIZAN II	19 49 55.525	+00 52 33.23		+3.500	*	F6 IB		187329	125159	V
363	26 THE PEG	BIHAM	22 07 40.600	+05 57 04.13		+3.515		A2 V		210418	127340	D
179	17 BET CNC	AL TARF	08 13 48.282	+09 20 27.73		+3.523		K4 III		69267	116569	D
252	55 DEL GEM	WASAT	07 17 08.285	+22 04 34.08		+3.526		F0 IV		56586AB	79294	D
232	23 DEL ERI	RANA	03 40 51.035	-09 55 53.05		+3.530		K0 IV		23249	130686	
290	30 ETA LEO	AL JABHAY	10 04 36.533	+17 00 26.17		+3.530		A0 IB		87137	98955	
470	74 EPS TAU	OCULUS BOREUS	04 25 41.585	+19 04 16.36		+3.534		K0 III		29305	93954	
147	8 IOT CET	SCHEMALI	00 16 52.784	-09 06 03.44		+3.540		K2 III		1522A	128694	D
247	41 UPS-4 ERI	GEEMIN I	04 16 00.036	-33 55 09.65	L	+3.553		88.5V		27376AB	194902	D
437	MU-2 SCO	TALI AL SHAULA II	16 48 56.599	-37 56 03.17		+3.553		B2 IV		151985	208116	
223	44 CHI DRA	ALAYAKAN	18 21 57.480	+72 42 42.15		+3.563		F7 V		170153	9087	D
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 16.898	-12 42 04.49		+3.564		G9 III		192947AB	163427	D
1	51 AND NEMBUS		01 34 54.636	+48 22 32.66		+3.570		K3 III		9927	37375	D
499	12 KAP DRA	KAFZATANIA	09 00 13.266	+47 21 20.79	L	+3.572		A0		77327AB	42661	D
197	6 BET UMA	ROTANEV	20 35 12.206	+14 25 12.31	C	+3.583		F5 IV		136524AB	106316	D
300	13 GAM LEP	KURSI AL JABBAR	05 42 22.653	-22 27 48.30		+3.597		F6 V		38393A	170759	D
146	45 THE CET	AL NAYMAT I	01 21 31.363	-08 26 27.16		+3.603		K0 III		9512A	129274	D
526	5 BET VIR	ZAVIJAVA	02 47 02.036	+27 03 20.55		+3.610		F8 V		102870	119076	D
33	41 -C-1 ARI	NAIR AL BUTAIN	03 46 11.030	+23 54 07.66		+3.610		B8 V		17573	75596	D
464	27 -F TAU	ATLAS	04 16 56.651	+15 30 30.62		+3.626		B8 III		21550AB	76228	D
468	54 GAM TAU	YADUM I	09 27 36.565	+63 16 55.11		+3.635		K0 III		27371	93868	D
204	11 ALP DRA	T-HUBAN	09 27 36.565	+63 16 55.11		+3.652		AD III		123253	16273	D
488	23 -H UMA	AL-AUD IV	21 37 19.332	-16 53 21.05		+3.656		F0 IV		81937A	14908	D
109	40 GAM CAP	NAS-IRA	15 25 45.944	+29 16 37.26		+3.665		AB M		206088	164560	D
173	3 BET CRB	NUSAKAN	15 43 52.610	+15 34 37.42		+3.669		F0 III		137909	83831	D
450	28 BET SCP	NASAK S-HAMIYA I	04 48 32.421	+05 31 16.34		+3.672		A2 IV		141003A	101725	D
350	3 PI-4 ORI	AL TAJ II	07 01 08.627	+20 38 43.45		+3.670		B2 III		30836	112142	D
254	43 ZET GEM	MEKBUDA	03 41 54.055	+23 57 27.82		+3.702	*	F7 IB		52973A	79031	D
458	17 TAU	ELECIRA	11 43 25.030	+04 03 24.16		+3.702		B6 III		23302	76131	D
513	63 CHI UMA	AL-KAFZA-I	15 48 19.243	+04 37 36.85		+3.703		K0 III		102224	43886	D
454	37 EPS SCP	NASAK YAMANI II	19 52 51.383	+06 16 45.84		+3.714		A M		141795	121218	D
121	60 BET AQL	ALSHAIN	04 51 38.661	+02 21 37.24		+3.720		G8 IV		188512	125235	D
351	55 ZET ORI	AL TAJ III	01 46 39.447	-10 34 52.90		+3.722	*	B2 III		31237	112197	D
144	32 XI DRA	BATEN KAITOS	17 52 39.700	+56 52 47.68		+3.737		K2 III		11353	148059	D
216	62 GAM DRA	GRUMIUM	17 45 23.019	+02 43 28.28		+3.738		AD V		163588	30631	D
322	20 GAM OP-4	MULTIPHEN	16 19 42.737	+19 16 09.32		+3.745		A9 III		161868	122754	D
265		NASAK S-HAMIYA III								147547A	102107	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
469	61 DEL	TAU	04 20 02.844	+17 25 36.81		+3.757	K0 III		21697	93897	
196	9 ALP	DEL	20 37 18.874	+15 44 04.30		+3.766	B9 V		196867A	106357	D
375	15 ETA	PER	02 47 01.935	+55 41 22.43		+3.767	K3 IB		17506A	23655	D
11	2 EPS	AQR	20 44 58.217	-09 40 48.21		+3.770	A1 V		199001	144810	
193	1 KAP	CYG	19 15 56.786	+53 16 31.88		+3.773	K0 III		181276	31537	
301	15 DEL	LEP	05 49 10.193	-20 52 55.23		+3.780	G8 III		39364	170926	
376	27 KAP	PER	03 06 06.756	+44 40 10.21		+3.783	K0 III		19476A	38609	D
511	29 UPS	UMA	09 47 27.102	+59 16 30.31		+3.794	F2 IV		84999AB	27401	D
503	53 XI	UMA	04 58 58.680	+41 00 17.79	L	+3.800	K5 II+8	*	3206875	39966	D
296	0MI	LMI	11 15 31.162	+31 48 38.88	C	+3.803	G0 V		98230/1AB	62484	D
245	52 UPS-2	ERI	10 50 31.231	+34 29 05.62		+3.808	K0 III-IV		54364	62297	
328	10 LAM	OPH	04 33 36.315	-30 39 48.99		+3.810	K0 III		29291	195148	
390	113 ALP	PSC	16 28 23.341	+02 05 31.06	C	+3.810	A1 V		148857AB	121658	D
378	38 OMI	PER	01 59 27.352	+02 31 23.04		+3.820	A M+2 P		1244677AB	110291	D
208	63 EPS	DRA	11 28 27.536	+69 36 26.09		+3.827	M0 III		100029	15532	D
951	41 GAM	SCP	15 54 08.455	+15 49 24.77		+3.829	B1 III		23180AB	56673	D
472	77 THE-1	TAU	04 25 42.982	+15 51 10.15	L	+3.833	G8 III		188115AB	9540	D
228	53 -L	ERI	04 35 53.315	-14 24 01.60		+3.841	F6 V		142860	101826	D
101	16 OMI-1	CHA	06 52 03.362	-24 07 12.97		+3.845	A0 V		212061	146044	D
416	13 MU	SGR	18 10 46.324	-21 04 25.46		+3.849	K0 III		29307	93955	D
959	20 TAU	MAIA	03 42 50.756	+24 12 47.01		+3.859	K2 III		29503AB	149781	D
531	15 ETA	VIR	12 17 20.761	-00 23 20.65		+3.860	K3 IAB		50377	172542	D
276	35 TOT	HYA	09 37 18.152	-00 54 53.79		+3.863	B7 III		23408	76155	
535	107 MU	VIR	14 40 25.283	-05 26 30.92		+3.883	A2 V		107258	138721	
443	5 RHO	SCO	15 53 47.507	-29 04 10.42		+3.883	K3 III		83618	137035	
234	3 ETA	ERI	02 53 58.952	-09 05 45.89		+3.887	F3 IV		129502	140090	D
294	24 MU	LEO	09 49 55.434	+26 14 36.08		+3.890	B2 V		142869A	183957	D
227	8 ALP	EGU	00 23 44.906	+05 02 24.35		+3.897	K1 III-IV		18322	130197	
386	KAP	PHE	08 41 50.747	+18 20 21.83		+3.914	K2 III		85503	81064	
81	47 DEL	CNC	00 23 44.906	+05 02 24.35		+3.929	G0 III+5		202441/8	126662	
246	43 UPS-3	ERI	08 41 50.747	+18 20 21.83		+3.935	A7 V N		2262	215092	D
495	79 ZET-2	UMA	04 22 09.409	-34 07 54.81		+3.935	K0 III		74442	98087	D
364	47 LAM	PEG	13 21 55.908	+05 10 56.63		+3.950	M1 III		29028	194984	D
407	ALP	SGR	22 44 07.173	+23 19 07.41		+3.955	A2 M		116657B	28738	D
447	9 OME-1	SCO	19 20 25.492	-40 42 43.10		+3.955	G8 II-III		215665	90775	
157	59 UPS	CET	16 03 52.553	-20 32 07.11		+3.968	B9 III		181869	228659	
134	MU	CEP	01 57 38.931	-21 19 05.71		+3.968	B1 V		144470	184123	
487	80 -G	UMA	21 41 58.501	+58 33 00.65		+3.990	M1 III		12214	167471	DV
408	BET-1	SGR	13 23 13.477	+55 14 52.99		+3.990	M2 IA	*	206936AB	33693	
439	MU -2	SCO	19 19 02.816	-44 33 17.72		+4.010	A5 V		116942	28751	D
24	13 EPS	AOL	16 09 05.091	-19 19 56.20	L	+4.012	B8 V N		181454A	2259646	D
86	48 TOT-2	CNC	18 57 21.118	+14 53 56.41		+4.020	B2 IV-V		14502AB	194984	D
174	1 ALP	CRV	08 43 40.514	+24 56 35.19		+4.030	K2 III		176411	104318	D
201	2 EPS	DEL	12 05 49.746	-28 27 00.13		+4.030	G8 II		74735A	80416	
377	46 XI	PER	20 30 49.400	+11 07 55.83		+4.035	F2 V		105452	180505	
238	38 OMI-1	ERI	03 55 42.825	+36 57 56.50		+4.037	B6 III		195810	162230	
70	23 THE	800	04 09 25.339	-06 57 55.74		+4.045	F2 II-III		24912	56856	
			14 23 29.610	+52 04 52.32		+4.046	F7 V		26514	131019	
									126660	29137	

TABLE 6 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HENRY DRAPER CAT. NO.	SAD* CAT. NO.	STAR PROP.
142	82 DEL CET	AL KAFF AL JIDHMAH III	02 36 54.985	+00 06 50.00		+4.064	B2 IV		16512	110665	
179	7 ALP CRT	ALKES	10 57 20.138	-18 01 55.62		+4.066	K0 III		95272	156375	
346	9 OH1-2 ORI	AL KUMH II	04 53 33.423	+13 26 13.64		+4.071	K2 III		31421A	54218	0
532	99 IOT VIR	SYRMA	14 13 23.345	-05 45 46.18		+4.077	F7 III-IV		124850	139824	
355	40 PHI-2 ORI	TIKA	05 34 09.415	+09 15 54.81		+4.082	K0 III		3716C	112958	
169	ALP CRA	ALFECCE MERIDIANA	19 06 04.345	-37 59 03.49		+4.100	A2 N		178253	210990	
95	23 GAM CMA	MIRZA	07 01 29.713	+15 33 28.79		+4.115	B8 II		51244	352303	
272	4 DEL 4YA	MINAZAL I	08 35 00.594	-05 52 45.60		+4.143	A0 V		73262	116965	
257	18 NU GEM	NUCATAI	06 25 59.627	+20 14 44.06		+4.153	B7 IV E		45542AF*	78423	0
14	43 THE AGR	ANCYA	22 14 11.766	-08 01 58.75		+4.155	G8 III-IV		211391	145991	0
440	XI-1 SCO	GRASSIAS (A)	16 01 36.889	-11 14 12.28	L	+4.166	F5 IV MN		144065/GAB	159665	0
462	23 TAU	HEROPE	03 43 21.195	+23 47 38.99		+4.176	B6 IV MN		23480	76172	
74	19 LAM BOO	AULAD ALTHIBA	14 14 28.969	+46 19 01.94		+4.178	A0 P		125162	44965	
453	13 DEL-2 SCP	NASAK YAMANI I (A)	15 32 24.681	+10 42 17.82		+4.179	F0 IV		13918A	101624	0
533	58 KAP VIR	ALSAFAR I	14 10 13.451	-10 02 30.80		+4.193	K3 III		124254	158427	0
367	46 XI PEG	SUUDALNUJUM	22 04 11.592	+11 54 57.24		+4.203	F7 V		215648A0	109165	0
132	2 THE CEP	AL KIDR	20 28 44.678	+62 49 32.32		+4.217	A M		195725	18897	
222	43 PHI DRA	ALD-IBA	18 21 28.505	+71 18 42.23		+4.210	A0 P		170000A8	9084	0
474	65 KAP-1 TAU	ALKALBAIN III	04 22 23.083	+22 10 51.94	L	+4.220	A7 V		27934	76601	0
79	65 ALP CNC	ACUBENS	08 55 45.247	+12 03 09.07		+4.228	A M		76756	98267	0
153	89 PI CET	SADR AL KAITOS IV	02 41 44.470	-14 04 16.17		+4.235	B7 V		17081	148575	
105	5 ALP-1 CAP	PRIMA GIEDI	20 14 52.647	-12 33 51.04		+4.240	G3 I8		192376A	163422	0
303	31 LYN	SHAKAH	08 19 25.154	+43 21 00.63		+4.245	K5 III		70272	42319	
395	110 OH1 PSC	TORCULAR	01 42 44.968	+08 54 24.64		+4.259	G8 III		10761	110110	
149	87 MU CET	AL KAFF AL JIDHMAH IV	02 42 14.102	+09 54 15.02		+4.260	F0 IV		17054	110723	0
236	THE-2 ERI	ACAMAR (B)	02 56 22.578	-40 30 14.34		+4.263	A2 V		186238	216114	0
92	8 BET CVN	CHARA	12 31 22.289	+41 37 44.10		+4.266	G0 V		109339	44230	
237	69 LAM ERI	KURSI AL JAUZAH II	05 06 45.092	-08 49 00.32		+4.270	B2 IV		33328	131824	0
199	12 GAM-2 DEL	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.271	K2 IV		17966A	116476	
151	73 XI-2 CET	AL KAFF AL JIDHMAH II	02 25 29.791	+08 14 13.15		+4.271	B9 III		15318	110543	0
519	22 EPS UMI	CIRCITORES	16 51 00.515	+82 07 21.54		+4.280	G5 III		153751A	277C	
409	3ET-2 SGR	ARKAB POSTERIOR	19 19 36.611	-44 53 44.93		+4.280	F0 III-IV		181623	229654	0
476	69 UPS TAU	ALKALBAIN V	04 23 18.680	+22 42 06.75		+4.288	B6 V		28024	76608	
275	7 ETA 4YA	MINAZAL II	08 40 36.696	+03 34 45.66		+4.299	B3 V		74280	117050	
465	19 -0 TAU	TARGETA	03 42 13.572	+24 18 42.91		+4.298	B6 V		23338	76140	
520	16 ZET UMI	AKFA FARKADAIN	15 45 47.812	+77 56 57.09		+4.303	A3 V		142105	8328	0
75	51 MU -1 BOO	ALKALUROPS	15 22 35.395	+37 33 05.49		+4.306	F0 V		137391A	64686	
293	4 LAM LEO	ALTERF	09 28 52.249	+23 11 22.21		+4.310	K5 III		82308	80885	
167	42 ALP COM	DIADEM	13 07 33.321	+17 47 36.25		+4.318	F5 V		114378/5AB	110443	0
449	10 ONE-2 SCO	JABYAT ACRA3I II	16 04 28.091	-20 44 06.53		+4.320	GG2		144608	184135	
13	55 ZET-2 AGR	ALSAC (A)	22 26 15.513	-00 16 36.08		+4.323	F2 IV		2130528	146108	0
397	17 BET PSA	FUM AL TUT I	22 28 40.070	-32 36 11.09		+4.325	A0 V		213398A	213883	0
121	33 THE CAS	MARFAK	01 08 02.554	+54 53 04.32		+4.332	A7 V		6961	22070	
278	13 RHO 4YA	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347	A0 V		75137AB	117146	0
518	23 DEL UMI	VILCUN	17 48 18.239	+86 36 34.78		+4.347	A1 V		16620E	2937	
316	6 ZET-1 LYR	NASR ALWAKI I	18 43 02.939	+37 33 06.28		+4.347	A M		173648A	57321	0
38	57 DEL ARI	BOTEIN	03 08 45.885	+19 32 20.22		+4.350	K2 III		15187	93328	
168	15 GAM COM	AL DAFIRAH	12 24 26.870	+28 32 46.07		+4.353	K1 III-IV		109381	82313	
348	2 PI -2 ORI	AL TAJ I	04 47 53.147	+08 48 51.64		+4.355	A0 V		30739	112124	
403	5 ALP SGE	SHAM	19 37 51.612	+17 53 51.21		+4.359	G0 II		185758A	105120	0

TABLE 6 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HEARY DRAPER (-D) CAT. NO.	SAO CAT. NO.	STAR PROP.
150	65 XI -1 CET	AL KAFF AL JID-HAH I	02 10 20.747	+08 36 47.36		+4.36C	S8 II		13611	110408	
165	KAP COL	KURUD II	06 14 46.278	-35 07 22.03		+4.360	G8 III		43785	196643	
28	41 IOT AQL	AL THALIMAIN II	19 34 08.056	-01 23 55.88		+4.36C	E5 III		184930	143597	C
133	1 KAP CEP	AL AGANAM I	20 10 36.574	+77 33 42.36		+4.370	B2 IV		192907A	9665	D
318	20 ETA LVR	AL ADOFAR	19 12 03.290	+39 03 32.09		+4.373	B2 IV		180163A	68010	D
329	40 XI OP4	AGGIA	17 18 00.251	-21 03 39.72		+4.397	F2 V		156897A	185296	D
268	76 LAM HER	MASYM	17 28 42.947	+26 08 43.49		+4.40C	K4 III		158855	85163	D
137	33 PI CEP	AL AGYAM II	23 06 18.007	+75 07 03.55		+4.407	G2 III		218658A	10629	D
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 21 26.67		+4.41C	B0 IV		36822	112914	
370	68 UPS PEG	ALKARAB	23 22 52.793	+23 07 43.20		+4.414	F9 IV		220657	91253	
537	6 ALP VUL	ANSER	19 26 37.410	+24 33 44.90		+4.42C	M0 III		183439	87261	
200	11 DEL DEL	AL UKUD	20 41 07.413	+14 53 36.69		+4.420	A7 III P		197461	106425	
392	63 DEL PSC	KUTCN I	00 46 05.113	+07 18 47.93		+4.43C	K5 III		4636	109474	
239	40 OMI-2 ERI	KEID	04 12 58.161	-07 31 45.89		+4.433	K1 V		26365A	131063	D
279	5 SIG -YA	MINKALS-UJA	08 36 08.671	+02 31 03.48		+4.435	K2 III		73471	116988	
136	17 XI -2 CEP	KUR-HA (A)	22 02 20.440	+64 23 01.69		+4.454	A M		209791A	19827	D
220	60 TAU DRA	AT-HAFI II	19 16 31.412	+73 15 47.87		+4.455	K3 III		181584	9366	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 20.04		+4.458	K2 II		31767	112281	
292	1 KAP LEO	MINKARASAD	09 21 44.777	+26 23 55.32		+4.46C	K2 III		81146A	80807	D
486	15 -F UMA	AL-HAUD I	09 05 21.316	+51 48 29.27		+4.467	A M		73209	17136	
180	11 BET CRT	AL SHARASIF II	11 09 11.730	-22 33 08.99		+4.467	A2 III-IV		97277	27924	
12	55 ZET-1 AQR	ALSAD (B)	22 26 15.261	-00 16 35.27		+4.493	F2 IV		213051A	146107	D
244	50 UPS-1 ERI	BEEM III	04 31 32.818	-29 51 55.49		+4.50C	G6 III		29085	169570	
406	62 -C SGR	TEREBELLUM IV	19 59 35.103	-27 51 01.64		+4.503	M4 III		189763	188844	
17	13 NU AQR	ALBULAN II	21 06 52.303	-11 34 31.13		+4.507	S8 III		201381	164182	
399	-K-1 PUP	MERKEB (A)	07 36 46.323	-26 41 12.59		+4.509	B9		61555A	174198	D
32	39 ARI	BARANI III	02 44 55.469	+29 02 26.66		+4.513	K1 III		17361	75576	
218	67 RHO DRA	TAIS II	20 02 35.927	+67 43 51.21		+4.513	K3 III		190940	18676	
391	4 BET PSC	FUM AL SAMAKAH	23 01 19.667	+03 33 01.75		+4.518	B5 V E		217831	127934	
405	59 -8 SGR	TEREBELLUM II	19 53 52.975	-27 19 14.61		+4.520	GK3		189603	188742	
534	100 LAM VIR	KAMBALIA	14 16 23.989	-13 08 36.89		+4.522	A8 M		125337	158489	
77	17 KAP-2 BCO	AULAD ALNAT-HAT	15 02 19.094	+27 09 29.75		+4.523	K2 III		133562	83645	
73	43 PSI 800	TERTIUS ASELLUS (A)	14 11 41.518	+52 01 23.55		+4.53C	A7 IV		124675A	29046	D
484	24 -D UMA	AL-HIBA VII	09 30 05.839	+70 03 06.47		+4.552	G2 IV		82210	8897	
281	32 TAU-2 -YA	UKOAH II	09 29 25.587	-00 57 47.98		+4.558	A3 III		82486	136932	D
512	30 PHI UMA	AL-HAUD VII	09 48 43.042	+54 17 56.59		+4.573	A3 S		85235A	27408	
369	62 TAU PES	SALP	23 18 09.565	+23 27 58.22		+4.58C	A5 IV		220061	91186	
387	58 PI DRA	TAIS I	00 30 58.031	-46 21 33.10		+4.593	G8 III		3919	215194	
217	31 TAU-1 -YA	UKOAH I	09 26 36.618	-02 32 58.04		+4.597	F6 V		182564	18299	
280	42 -C ORI	MIZAN BATIL I	05 32 55.055	+04 52 11.72		+4.59C	B2 III		37018A	13232C	D
330	24 OME HER	CUJAM	16 23 06.363	-14 08 49.24		+4.590	A0 P		149112A	102153	D
506	4 PI -2 UMA	AL-HIBA III	08 35 51.356	+64 30 16.82		+4.593	K2 III		73108	14616	D
37	5 GAM-2 ARI	MESARTIM (A)	01 50 46.872	+19 02 57.87		+4.594	B9 V		11503A	92691	D
224	31 PSI-1 DRA	DZIBAN I	17 42 49.282	+72 10 26.21		+4.594	F5 IV-V		162003A	889C	D
315	5 EPS-2 LVR	DOUBLE DOUBLE II	19 42 43.325	+39 33 33.99		+4.595	A3 +45		173607/8CD	67315	D
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.995	-05 26 16.22		+4.60C	O6 +80.5		37020-3ABCD	132314	D
382	28 OME ORI	GORGONEA QUARTA	03 08 03.167	+39 25 23.39		+4.613	K0 III		19556	56224	
353	36 UPS PER	THABIT	05 29 30.607	-07 20 12.87		+4.616	B0 V		36512	132222	
455	63 THE-1 SCA	ALYA (A)	18 53 43.976	+04 09 13.25		+4.622	A5 V		175638A	124068	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	V N	SPECTRAL CLASS	S N	HENRY DRAPER (40) CAT. NO.	SAO CAT. NO.	STAR PROP.
282	72 LEO	ZUBRAH	11 12 32.837	+23 22 05.98			M3 III		97778	81736	
400	-K-2 PUP	MERKEB (3)	07 36 46.820	-26 41 19.88			R3		615568C	174199	D
39	48 EPS	AL BUTAIN III	02 56 20.825	+21 09 29.91	L		A2 V		1851570AB	75673	D
31	35 ARI	BARANI II	02 40 30.651	+27 29 44.29			R3 V		16908	75532	
19	52 PI -1 AGR	SEAT	22 22 43.381	+01 07 22.87			B1 V PE		212571	127520	
194	80 PI -1 CYG	AZELFAGE	21 40 18.352	+50 57 39.10			R3 IV		206672	33665	
510	14 TAU	AL-FAUD II	09 06 49.121	+63 43 07.22			A7 M		7836273A	14796	D
347	7 PI -1 ORI	AL TAJ IV	04 52 08.440	+10 04 22.53			AD V		31295	94201	
80	43 GAM	ASCULLUM BOREALIS	08 40 23.702	+21 38 58.82			A1 V		74198	80378	D
36	5 GAM-1 ARI	MESARTIM (B)	01 50 46.955	+13 03 06.11			A1 P		115028	92680	
219	61 SIG	ALSAFI	19 32 27.585	+59 34 34.11			K0 V		185144	18396	
379	22 PI	GORONEA SECUNDA	02 55 33.275	+39 27 50.67			A2 V		18411	56047	
148	91 LAM	CEI	02 57 01.671	+08 42 33.54			R5 III		18604	110889	
426	58 OME	TEREBELLUM I	19 52 46.744	-26 26 01.47			D85		188376	188722	
51	15 LAM	AL-HIBA II	04 49 42.058	+14 10 08.31			M3 S		34411A	40233	D
345	4 OMI-1 ORI	AL KUMM I	20 49 57.874	-09 10 15.76			A8 M		30959	94176	
16	6 MU	ALBULAN I	22 00 43.657	-02 23 51.13			M3 S		197743	144895	
19	31 OMI	SADALMULK	02 09 42.548	-15 21 47.46			F5 IV-V		209409	145837	
155	76 SIG	SADR AL KAITIOS II	02 29 42.548	-15 21 47.46			F5 IV-V		15798	148445	
159	17 PHI-1 CET	ALMITAH I	00 41 40.021	-10 52 53.49			K0 III		4188	147423	
71	21 TOT	SECUNDUS ASELLUS	14 14 23.673	+51 35 48.53			A7 V		125161A	29071	D
111	8 NU	AL S-HAT	20 17 53.485	-12 55 04.49			39 V		193432A	163468	D
507	8 RHO	AL-HIBA IV	08 58 03.573	+67 49 35.21			M3 IIIB		76827	14742	D
243	2 TAU-2 ERI	ANGETENAR	02 49 46.150	-21 12 32.91			K0 III		17824A	168094	D
55	50 PSI-2 AUR	DOLONES III	06 35 45.763	+42 32 06.13			K3 III		47174	41239	
249	65 PSI	KURSI AL JAUZAH I	04 59 00.759	-07 14 44.98			32249		79154AE	131700	D
509	13 SIG-2 UMA	AL-HIBA VI	09 06 01.131	+67 20 21.67			F7 IV-V		37507	14788	D
331	43 -D ORI	MIZAN BATIL III	05 36 27.836	-07 14 21.42			A4 IV		20320	132411	
233	13 ZET	ZIBAL	03 13 24.143	-09 00 15.50			G2 III		126868AB	139951	D
536	105 PHI	ALGAFAR II	14 25 37.362	-02 00 17.26			F5 V		160922	17576	D
226	28 OME	ADAFAR II	17 37 14.548	+68 46 52.48			CA3		161912A	228466	
433	101-2 SCO	VANANT	17 46 41.171	-40 04 35.09			A1 V		214934	90717	
368	43 OMI	SADALMAIAR	22 39 24.327	+29 02 46.12			K0 III		176524	9283	
221	52 UPS	AT-HAFI I	18 55 00.917	+71 13 50.82			A5 V		79439	27191	
485	18 -E UMA	AL-FAUD III	09 12 36.226	+54 13 47.19			CA2		149974AB	187426	D
417	32 NU -1 SGR	AIN AL RAMI I	18 51 09.064	-22 48 29.54			G65		195005	188778	N
404	60 A	TEREBELLUM III	19 55 54.576	-26 19 51.29			F5 IV-V		16620AB	148528	D
185	34 P	REVENATE OF THE SWAN	20 15 56.500	+37 52 35.55			K4 III		209747	127285	D
133	83 EPS	SADR AL KAITIOS III	02 37 08.592	-12 05 00.36			DF5		175950AB	187682	D
425	22 NU	FUM AL FARAS	22 03 09.442	+04 48 48.17			A M		33641	57755	
366	42 PSI	AL KILADAH	19 12 28.542	-25 20 40.58	L		K0 III-IV		159560A	30450	D
52	11 MU	AL-HIBA I	05 10 00.157	+38 25 38.27			B9 V		15130	148385	D
6	46 XI	AD-HIL	17 31 16.719	+55 12 22.82			A M		1595418	30447	D
215	25 NU -2 DRA	ALWAID (A)	02 23 31.955	-12 30 54.30			A2 V		50973	41463	D
154	72 RHO	SADR AL KAITIOS I	17 31 11.293	+55 13 04.07			AD IV-V		20150	75810	D
214	24 NU -1 DRA	ALWAID (B)	06 53 58.335	+45 09 40.72			F5		144218C	158583	D
308	16 LYN	DOLONES X	03 12 01.326	+20 51 37.93					154905/6AB	30239	D
40	59 ZET	AL BUTAIN IV	16 02 31.857	-19 40 00.07	L						
429	8 BEI-2 SCO	GRAFFIAS (C)	17 04 17.357	+54 32 07.95							
213	21 MU	ALRAKIS									

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL MAG.	V	SPECTRAL CLASS	S	HENRY DRAPER (-D) CAT. NO.	SAO CAT. NO.	STAR PROP.
521	21 ETA UMI	ANWA FARKADAIN	16 18 56.288	+75 52 16.64		+4.937		DA8		148048	8470	
477	52 PHI TAU	ALKALBAIN I	04 17 16.476	+27 13 59.39		+4.950		K1 III		27382A	76558	D
54	46 PSI-1 AUR	DOLONES I	06 21 02.880	+49 18 56.91		+4.95E	*	M0 IAB	*	44537	41076	
195	45 ONE-1 CYG	RUCBA	20 28 30.590	+49 46 57.97		+4.950		B2 V		195556A8	49712	D
388	NU PHE	ALRIAL IV	01 12 55.966	-45 47 51.12		+4.953		F8 V		7510	215428	
456	63 THE-2 SCA	ALYA (B)	18 53 45.420	+04 08 07.70		+4.975		A5 N		1756398	124070	D
53	21 S16 AUR	AL-HIBA III	05 21 15.660	+37 20 26.65		+4.987		K4 III		35186	57981	D
100	18 MU CMA	ISIS	06 53 49.103	-13 58 38.75		+4.990		G5 +A2		51250/1AB	152123	D
418	35 NU-2 SGR	AIN AL RAMI II	18 52 05.766	-22 44 05.19		+4.99C		K3 III		175150	187445	D
267	7 KAP-1 HER	MARSIC	16 05 48.989	+17 10 43.81		+5.000		G8 III		145001A	101951	D
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+41 50 32.27		+5.005		K3 III		49520	41380	
164	THE COL	KURUD I	06 05 48.671	-37 14 41.29		+5.010		B9		42167	196514	
516	11 GAM-1 UMI	PHERRAD MINOR	15 17 07.110	+72 00 15.08		+5.02C		K4 III		136726	8207	D
423	47 CHI-1 SGR	NAMAL-SADIRA+ III	19 22 14.012	-24 36 26.63		+5.020		DA5		182369AB	188101	
15	63 KAP -ABR	SITULA	22 35 10.023	-04 29 11.39		+5.025		K2 III		214376	146210	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.027		K5 III		47914	41288	D
344	4 EPS-1 LVR	DOUBLE DOUBLE I (A)	18 42 40.873	+39 37 00.09		+5.04C	S	A2		173582B	67310	D
463	28 BU TAU	PLEIONE	03 46 12.391	+23 59 07.56		+5.047		B8 P		23862	76229	D
83	16 ZET-1 CNC	TEGMINE (AB)	08 09 20.753	+17 47 55.93	L	+5.05C		F8 V		68256/1AB	97645	D
277	38 KAP	AL-SHARASIF I	09 37 54.469	-14 06 16.63		+5.058		B5 V		83754	155388	
203	27 -F DRA	ADFA ALDIB I	17 32 09.543	+68 10 01.20		+5.06C		K0 III		159966	17526	D
341	43 THE-2 ORI	MIZAN BATIL II	05 32 55.449	-05 26 50.72		+5.077	S	09.5V P		37041A	132321	D
452	13 DEL-1 SCP	NASAK YAMANI I (B)	15 32 24.633	+10 42 12.66		+5.109		DF0		138917B	101623	D
319	2 MU LVR	AT-FAF	18 22 34.868	+39 48 43.85		+5.110		A3 III		169702	66943	D
188	6 BET-2 CYG	ALBIREO 4B)	19 28 44.302	+27 51 32.69		+5.11C		B8 V		183914B	87302	D
88	77 XI CNC	MA-N	09 06 29.235	+22 14 55.95		+5.140		K0 III		79515	80666	D
198	12 GAM-1 DEL	AL-SALIB (B)	20 44 19.473	+15 56 34.71		+5.14C		F7 V		197963B	106475	D
508	11 SIG-1 UMA	ALT-HIBA V	09 04 01.998	+67 04 33.26		+5.147		K5 III		77800	14769	D
302	8 ALP-1 LIB	ZUBENELGENUBI I	14 47 54.555	-15 47 23.90		+5.153		F5 IV-V		130815B	158836	D
122	30 MU CAS	AL-MARFAK	01 04 55.686	+54 40 32.96		+5.163		G5 V P		6592	22024	D
159	19 PHI-2 CET	ALNITHAM II	00 47 37.288	-10 54 47.65		+5.188		F8 V		4813	147470	
332	6 -G ORI	MANICA	04 52 00.305	+11 20 46.39		+5.190		A3		31283	94197	
56	52 PSI-3 AUR	DOLONES II	06 35 20.296	+39 56 51.00		+5.20C		B8 III		47100	59319	
59	57 PSI-6 AUR	DOLONES VI	06 43 50.996	+48 50 40.75		+5.210		K1 III		48781	41346	
393	86 ZET-1 PSC	KUTEN II	01 11 06.973	+07 18 41.34		+5.215		F0 IV-V		7344A	109739	D
58	56 PSI-5 AUR	DOLONES V	06 43 08.206	+43 37 45.74		+5.240		G0 V		48682A	41330	D
76	54 PHI 800	CEGIUS	15 36 01.742	+40 30 55.00		+5.24C		S8 III-IV		135641	45643	D
242	10 RHO-3 ERI	ALUDHI III	03 01 48.952	-07 47 43.01		+5.257		A3		19107	130269	D
2	49 A AND	T-HAIL	01 27 05.505	+46 45 00.17		+5.26C		K0 III		5057	37275	
475	67 KAP-2 TAU	ALKALBAIN IV	04 22 26.032	+22 05 13.99		+5.280		A7 V		21946	76602	
306	21 NU LIB	ZUBEN-HAKRABI	15 03 43.929	-16 03 51.08		+5.28C		K5 III	*	133774	159028	D
30	33 ARI	BARANI I	02 37 45.345	+26 50 50.75		+5.295		A3 V		16628A	75510	D
160	22 PHI-3 CET	ALNITHAM III	00 53 31.022	-11 32 13.03		+5.30C		K4 III		5437	147519	D
241	9 RHO-2 ERI	ALUDHI II	03 00 14.992	-07 52 51.43		+5.310		GG6		18953AB	130254	D
42	42 PI ARI	AL-BUTAIN I	02 06 29.805	+17 15 27.66		+5.34C		B6 IV		17543A	93127	D
478	59 CHI TAU	ALKALBAIN II	04 19 32.079	+25 30 46.87		+5.390		B9.5V		27638A	76573	D
305	44 ETA LIB	ZUBAN AL-KRAVI	15 41 15.348	-15 30 53.77		+5.40C		F0 III		140417	159466	D
424	49 CHI-2 SGR	NAMAL-SADIRA+ IV	19 22 28.169	-24 03 43.16		+5.420		K4 III		182416	188105	D
457	16 TAU	CALAENO	03 41 49.528	+24 08 01.54		+5.455		B7 IV		23298	76126	D
166	21 UU COM	KISSIN	12 28 30.930	+24 50 35.99		+5.455		A3 P		109945	82346	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RI. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (4D) CAT. NO.	SAO CAT. NO.	STAR PROP.
483	2 A	ALT-18A I	08 30 09.936	+65 19 03.83		+5.465		A M		72037	1459C	
263	64 ALP-2 HER	RASALGETI (B)	17 12 22.274	+14 26 43.71		+5.477	S	G5 III+P2		1550153	102681	D
43	46 RHO ARI	AL BUTAIN II	02 53 36.479	+17 49 30.02		+5.500		OF5		18256	53195	
138	29 RHO CEP	KAL BALRAI	22 23 27.436	+78 34 03.36		+5.520		A2		213798	10402	
270	33 A	UKDAH III	C9 32 02.913	-05 41 26.52		+5.55C		GK1		82870	136964	
89	12 ALP-1 CVN	LA SUPERBA	13 03 37.463	+45 32 07.73		+5.600		K1 III		113947	44465	D
90	3 PI -1 UMA	COR CARCII (B)	12 53 40.203	+36 35 03.82		+5.61C		F0 V		1124128	63256	D
505	34 MU ARI	ALT-18A II	09 34 46.703	+55 11 44.92		+5.625		GO V		72905	14609	D
63	38 -H	KOLEON	02 39 32.488	+13 47 58.68		+5.66C		AC IV-V		15811	93062	D
202	7 ZET-2 LVR	ALRUBAH	17 42 56.440	+53 49 15.34		+5.73C		AO		161693	30538	
317	6 RHO-1 ERI	NASR ALMAKI II	18 43 04.779	+37 32 23.33		+5.730		F0 IV		173649D	67324	D
240	PSI-9 AUR	ALUDAI I	02 58 42.365	-07 51 31.98		+5.745		DG6		18794	130243	
62	21 PHI-4 CET	DOLONES IX	06 52 50.489	+46 20 23.23		+5.750		B8 IV		50658	41446	
460	161 PSI-2 ORA	STEROPE I	03 42 55.370	+24 24 00.00		+5.757		B8 V		23432	76159	
170	7 CHI PER	ALMIT-HAM IV	00 56 13.583	-11 38 58.40		+5.790		GG7		5722	147546	V
225	19 LAM CNC	VARIABILIS CORONAE	15 46 30.695	+28 18 32.24		+5.80C		F		141527	84015	D
391	7 CHI PER	DZISAN II	17 42 50.923	+72 10 55.33		+5.80C		F9 V		1620048	8891	D
297	4 EPS-1 LVR	PIAUTOS	08 17 33.962	+24 10 52.39		+5.81C		B9 V		70011	80113	D
313	16 ZET-2 CNC	MISAM AL THURAYYA I	02 14 32.316	+57 17 09.57		+5.990		G5 II		13994A	23149	D
107	81 EPS-1 LVR	CRIMSON STAR	04 57 19.747	-14 52 47.48		+6.00C		C7 4E		31936	150058	D
84	61 PSI-8 AUR	DOUBLE DOUBLE I (B)	18 42 40.865	+39 37 03.40		+6.001	S	A4		173593A	67309	D
438	86 ZET-2 PSC	DABIH MINOR	20 17 58.071	-14 56 38.31		+6.16C		B9		193452AB	163471	D
394	41 EPS CNC	TEGMEINE (C)	08 09 21.213	+17 47 58.39		+6.200		DF2		69255C	97646	D
135	17 XI -1 CEP	DOLONES VII	06 50 31.472	+38 34 05.87		+6.24C		B9 P		50204	59589	D
461	22	JABBAH (3)	16 09 03.949	-19 19 17.45	L	+6.263		AD IV		145501C	159763	D
482	49 IOT-1 CNC	KUTON III	01 11 08.246	+07 18 52.03		+6.27C		F6 V		73458C	1C974C	D
85	17 XI -1 CEP	ALMALAF	08 37 35.068	+19 43 23.07		+6.300		A6 III		73731	98024	D
371	17 KAP-1 BOO	KURH4H (B)	22 02 19.143	+64 23 03.30		+6.354		A M		2097908	19826	D
441	XI -2 SCO	STEROPE II	03 43 03.846	+24 22 24.39		+6.430		B9.5V		23441	76164	D
389	PIC	FLYING STAR	11 50 06.189	+38 04 39.16		+6.453		G8 V P		103085	62738	D
		ZUBANA (B)	08 43 38.655	+28 56 57.95		+6.570		A3 V		747398	80415	D
		MISAM AL THURAYYA II	C2 15 42.613	+56 56 22.44		+6.645		B2 IA		14143A	23182	D
		TERTIUS AELLUS (B)	14 11 40.271	+52 01 15.47		+6.698		F2 V		1246748	23045	D
		GRASSIAS (B)	16 01 37.342	-11 14 08.07		+7.30C		D57		C	159666	D
		FUM AL HUT II	22 29 40.358	-32 36 41.57		+7.759 S		MO V		B	213884	D
		KAPTEYN'S STAR	05 09 41.462	-44 59 53.25		+8.85C				33793	217223	D

TABLE 7
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
1	NEMBUS	2	(L)	CLOUD?
2	THAIL	2	(A)	TRAIN OF A GARMENT
3	ALPHERATZ	1	(A)	THE HORSE'S NAVEL
4	MIRACH	1	(A)	GIRDLE OR WAIST-COAT
5	ALMACH	1	(A)	AN ARABIAN BADGER
6	ADHIL	2	(A)	TRAIN OF A GARMENT
7	SADALMELIK	1	(A)	LUCKY ONE OF THE KING
8	SADALSUD	1	(A)	LUCKIEST OF THE LUCKY
9	SADACHBIA	1	(A)	FELICITY OF TENTS
10	SKAT	2	(A)	A WISH
11	ALBALI	1	(A)	THE BRIGHEST ONE
12	ALSAD (B)	2	(A)	THE LUCKY ONE
13	ALSAD (A)	2	(A)	THE LUCKY ONE
14	ANCHA	1	(L)	THE HIP
15	SITULA	2	(L)	WATER-JAR
16	ALBULAN I	2	(A)	THE SWALLOWERS
17	ALBULAN II	2	(A)	THE SWALLOWERS
18	SADALMULK	2	(A)	LUCKY ONE OF THE KINGDOM
19	SEAT	2	(N)	(A TENT OF THE LUCKY ONE)
20	ALTAIR	1	(A)	THE EAGLE
21	ALSHAIN	1	(P)	FALCON
22	TARAZED	1	(P)	STAR-STRIKING
23	ALMIZAN I	2	(A)	SCALE-BEAM
24	DHAB AL OKAB	2	(A)	EAGLE'S TAIL
25	DENEK OKAB	2	(A)	EAGLE'S TAIL
26	ALMIZAN II	2	(A)	SCALE-BEAM
27	ALMIZAN III	2	(A)	SCALE-BEAM
28	AL THALMAIN II	2	(A)	TWO OSTRICHES
29	AL THALMAIN I	2	(A)	TWO OSTRICHES
30	BARANI I	2	(P)	BEARER
31	BARANI II	2	(P)	BEARER
32	BARANI III	2	(P)	BEARER
33	NAIR AL BUTAIN	2	(A)	BRIGHT ONE OF THE LITTLE BELLY
34	HAMAL	1	(A)	SHEEP
35	SHERATAN	1	(A)	A SIGN
36	MESARTIM (B)	1	(H)	MINISTERS
37	MESARTIM (A)	1	(H)	MINISTERS
38	SOFEIN	2	(A)	BELLIES
39	AL BUTAIN III	2	(A)	BELLIES
40	AL BUTAIN IV	2	(A)	BELLIES
41	KOLEON	2	(C)	SCABBARD
42	AL BUTAIN I	2	(A)	BELLIES
43	AL BUTAIN II	2	(A)	BELLIES
44	CAPELLA	1	(L)	LITTLE SHE-GOAT
45	MEKALINAN	1	(A)	SHOULDER OF THE REIN-HOLDER
46	ALANZ	2	(A)	THE GOAT
47	HAECUS I	2	(L)	THE KIDS
48	HAECUS II	2	(L)	THE KIDS
49	MAKASIM	2	(A)	WRIST
50	KABALINAN	2	(A)	THE HEEL OF THE REIN-HOLDER

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
51	AL-HIBA II	2	(A)	THE TENT
52	AL-HIBA I	2	(A)	THE TENT
53	AL-HIBA III	2	(A)	THE TENT
54	DOLONES I	2	(L)	GOADS
55	DOLONES III	2	(L)	GOADS
56	DOLONES II	2	(L)	GOADS
57	DOLONES IV	2	(L)	GOADS
58	DOLONES V	2	(L)	GOADS
59	DOLONES VI	2	(L)	GOADS
60	DOLONES VII	2	(L)	GOADS
61	DOLONES VIII	2	(L)	GOADS
62	DOLONES IX	2	(L)	GOADS
63	MERGA	2	(L)	MOE
64	ARCTURUS	1	(G)	BEAR-WATCHER
65	NEKKAR	1	(A)	THE DIGGER
66	SEGINUS	1	(L)	CYCNU8, SON OF MARS
67	T-HIBA	2	(A)	FEMALE WOLVES
68	IZAR	1	(A)	THE GIRL
69	MUPHRID	1	(A)	SOLITARY STAR
70	PRIMUS ASELLUS	2	(L)	FIRST ASS COLT
71	SECUNDUS ASELLUS	2	(L)	SECOND ASS COLT
72	TERTIUS ASELLUS (B)	2	(L)	THIRD ASS COLT
73	TERTIUS ASELLUS (A)	2	(L)	THIRD ASS COLT
74	AULAD ALTHIBA	2	(A)	WHELPS OF THE WOLVES
75	ALKALUROPS	1	(A)	HERDSMAN'S CLUB
76	CEGINUS	3	(L)	CYCNU8, SON OF MARS
77	AULAD ALNAT-ALAT	2	(A)	LOW LITTLE ONES
78	ACUBENS	1	(A)	THE CLAWS
79	AL IARF	2	(A)	THE END
80	ASCELLUS BOREALIS	1	(L)	NORTHERN ASS COLT
81	ASCELLUS AUSTRALIS	1	(L)	SOUTHERN ASS COLT
82	ALMALAF	2	(A)	THE STALL
83	TEGMINE (AB)	2	(L)	IN THE COVERING
84	TEGMINE (C)	2	(L)	IN THE COVERING
85	ZUBANAH (B)	2	(A)	THE CLAWS
86	ZUBANAH (A)	2	(A)	THE CLAWS
87	PIAUTOS	2	(C)	THE EYE
88	NA-MN	2	(P)	THE NOSE
89	LA SUPERBA	2	(L)	SUPERB ONE
90	COR CAROLI (B)	1	(L)	KING CHARLES
91	COR CAROLI (A)	1	(L)	KING CHARLES
92	CHARA	1	(L)	DEAR TO THE
93	SIRIUS	1	(G)	DOG-STAR
94	MIRZAM	1	(A)	THE ANNOUNCER
95	MIRZA	2	(A)	THE ANNOUNCER
96	WEZEN	1	(A)	WEIGHT
97	AD-HARA	1	(A)	THE VIRGINS
98	FURUD	1	(A)	THE APES
99	ALUDRA	1	(A)	THE VIRGIN
100	ISIS	2	(V)	EGYPTIAN GODDESS

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
101	UDRA	2	(A)	VIRGINS
102	AL ZARA	2	(W)	THE VIRGINS
103	PROCYON	1	(G)	ARISING BEFORE HIS COMPANION
104	GOMEISA	1	(A)	THE WEeping ONE
105	PRIMA SIEDI	2	(A)	FIRST GOAT
106	SECUNDA SIEDI	2	(A)	SECOND GOAT
107	DABIH MINOR	2	(A)	SLAUGHTERS
108	DABIH MAJOR	2	(A)	SLAUGHTERS
109	NASHIRA	1	(A)	FORTUNATE ONE
110	DENEB ALGEDI	1	(A)	TAIL OF THE GOAT
111	AL SHAT	2	(A)	THE SHEEP
112	CANOPUS	1	(G)	A GREEK NAVIGATOR
113	MIAPLACIDUS	1	(N)	WATER?
114	AVIOR	1	(N)	?
115	ASPIDISKE	1	(G)	ORNAMENTAL APLUSTRE
116	SCHEDAR	1	(A)	THE BREAST
117	CAPH	1	(A)	HAND
118	NAVI	1	(N)	?
119	RUCHBAH	1	(A)	THE KNEE
120	SEGIN	3	(A)	CYGNUS, SON OF MARS
121	MARFAK	2	(A)	ELBOW
122	AL MARFAK	2	(A)	THE ELBOW
123	RIGIL KENTIAURUS	1	(A)	CENTAUR'S FOOT
124	ADAR	1	(A)	GROUND
125	MULIFAIN	1	(A)	THE GATE
126	BATEN KENTIAURUS	2	(A)	CENTAUR'S BELLY
127	MENKENT	1	(A)	CENTAUR'S NOSE
128	ALDERAMIN	1	(A)	THE RIGHT ARM
129	ALFIRK	1	(A)	A FLOCK
130	ERRAI	1	(A)	THE SHEPARD
131	KABALFIRD	2	(A)	STARS OF THE FLOCK
132	AL KIOR	2	(A)	THE POT
133	AL AGNAM I	2	(A)	THE SHEEP
134	ERAKIS	3	(A)	?
135	KURAH (B)	1	(A)	BLAZE IN THE FACE OF A HORSE
136	KURAH (A)	1	(A)	BLAZE IN THE FACE OF A HORSE
137	AL AGNAM II	2	(A)	THE SHEEP
138	KALBALRAI	2	(A)	SHEPARD'S DOG
139	MENKAR	1	(A)	THE NOSE
140	DENEB KAITOS	1	(A)	TAIL OF THE WHALE
141	KAFALSIDMA	2	(A)	PART OF A HAND
142	AL KAFF AL JID-MAH III	2	(A)	PART OF A HAND
143	SADR AL KAITOS III	2	(A)	WHALE'S BREAST
144	BATEN KAITOS	1	(A)	WHALE'S BELLY
145	DENEB ALGENUBI	2	(A)	SOUTHERN TAIL
146	AL NAYMAT I	2	(A)	TEN OSTRICHES
147	SCHEMALI	2	(A)	NORTHERN
148	MENKAB	2	(A)	THE NOSE
149	AL KAFF AL JID-MAH IV	2	(A)	PART OF A HAND
150	AL KAFF AL JID-MAH I	2	(A)	PART OF A HAND

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
151	AL KAFF AL JIDMAH II	2	(A)	PART OF A HAND
152	MIRA	1	(L)	VARIABLE
153	SADR AL KAITOS IV	2	(A)	WHALE'S BREAST
154	SADR AL KAITOS I	2	(A)	WHALE'S BREAST
155	SADR AL KAITOS II	2	(A)	WHALE'S BREAST
156	AL NAYMAT II	2	(A)	HEN OSTRICHES
157	AL NAYMAT III	2	(A)	HEN OSTRICHES
158	ALNIITHAM I	2	(A)	THE NECKLACE
159	ALNIITHAM II	2	(A)	THE NECKLACE
160	ALNIITHAM III	2	(A)	THE NECKLACE
161	ALNIITHAM IV	2	(A)	THE NECKLACE
162	PHACT	1	(N)	GROUND?
163	WAZN	1	(A)	WEIGHT
164	KURUD I	2	(A)	APES
165	KURUD II	2	(A)	APES
166	KISSIN	2	(L)	A SPECIES OF IVY
167	DIADEN	3	(I)	CROWN
168	AL DAFIRAH	2	(A)	COARSE HAIR IN THE TAIL OF THE LION
169	ALFECCA MERIOIANA	2	(L)	MIDDLE OF THE DISH
170	VARIABLES CORONAE	2	(L)	VARIABLE ONE OF THE CROWN
171	BLAZE STAR	2	(I)	
172	AL-HECCA	1	(A)	THE DISH
173	NUSAKAN	1	(A)	BOWL
174	ALCHIBA	1	(A)	THE TENT
175	KRAZ	3	(N)	CRAB?
176	SIENAH	1	(A)	WING
177	ALGORAB	1	(A)	THE RAVEN
178	MINKAR	3	(A)	BEAK
179	ALKES	1	(A)	A SHALLOW BASIN
180	AL SHARASIF II	2	(A)	THE RIBS
181	ACRUX (A)	1		COINED FROM ALPHA CRUX
182	ACRUX (B)	1		COINED FROM ALPHA CRUX
183	MIMOSA	1	(L)	GENUS OF LEGUMINOUS TREES OR SHRUBS
184	SACRUX	1		COINED FROM GAMMA CRUX
185	REVENATE OF THE SWAN	2	(I)	
186	DENEB	1	(A)	TAIL
187	ALBIREO (A)	1	(L)	?
188	ALBIREO (B)	1	(L)	?
189	SADR	1	(A)	BREAST
190	FAWARIS II	2	(A)	RIDERS
191	AL JANAH	2	(A)	THE WING
192	FAWARIS III	2	(A)	RIDERS
193	FAWARIS I	2	(A)	RIDERS
194	AZELFAE	2	(A)	TAIL OF THE HEN
195	QUCBA	2	(A)	HEN'S KNEE
196	SVALOCIN	2	(L)	NICOLAUS BACKWARDS
197	ROTANEV	2	(L)	VENATOR BACKWARDS
198	AL SALIB (E)	2	(A)	THE CROSS
199	AL SALIB (A)	2	(A)	THE CROSS
200	AL UKUD	2	(A)	THE PEARLS

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
201	DENEB DULFIM	2	(A)	TAIL OF THE DOLPHIN
202	ALRUBAH	2	(A)	THE KNEE
203	ADFAR ALDIB I	2	(A)	HYAENA'S CLAWS
204	THUBAN	1	(A)	DRAGON
205	RASTABAN	1	(A)	DRAGON'S HEAD
206	ELIANIN	1	(A)	DRAGON'S HEAD
207	ALTAIS	1	(A)	THE GOAT
208	TYL	3	(N)	?
209	DHIBAH	2	(A)	HYAENAS
210	DHIBAIN	2	(A)	TWO HYAENAS
211	EDASICH	1	(A)	MALE HYAENA
212	GAUSAR	1	(P)	POISON PLACE
213	ALRAKIS	1	(A)	TROTTERING CAMEL
214	ALWAD (B)	2	(A)	THE MOTHER CAMELS
215	ALWAD (A)	2	(A)	THE MOTHER CAMELS
216	GRUMIUM	1	(L)	DRAGON'S UNDER JAW
217	TAIS I	2	(A)	GOAT
218	TAIS II	2	(A)	GOAT
219	ALSAFI	2	(A)	TRIPODS OF AN OPEN AIR KITCHEN
220	ATHAFI II	2	(A)	TRIPODS OF AN OPEN AIR KITCHEN
221	ATHAFI I	2	(A)	TRIPODS OF AN OPEN AIR KITCHEN
222	ALD-IBA	2	(A)	HYAENA
223	AL-AKKAN	2	(A)	TWO BLACK BULLS
224	DZIBAN I	2	(A)	TWO HYAENAS
225	DZIBAN II	2	(A)	TWO HYAENAS
226	ADFAR ALDIB II	2	(A)	HYAENA'S CLAWS
227	KITALPHA	1	(E)	PART OF A HORSE
228	SCEPTUM	3	(L)	SCEPTER
229	AC-ERNAR	1	(A)	END OF THE RIVER
230	CURSA	1	(A)	CHAIR
231	ZAURAK	1	(A)	BRIGHT ONE OF THE BOAT
232	RANA	3	(L)	FROG
233	ZIBAL	2	(A)	YOUNG OSTRICHES
234	AZ-IA	1	(A)	OSTRICH'S NEST
235	ACAMAR (A)	1	(A)	END OF THE RIVER
236	ACAMAR (B)	1	(A)	END OF THE RIVER
237	KURSI AL JAUZAH II	2	(A)	CHAIR OF THE CENTRAL ONE
238	BEID	1	(A)	EGG
239	KEID	1	(A)	EGG-SHELLS
240	ALUDHI I	2	(A)	OSTRICH'S NEST
241	ALUDHI II	2	(A)	OSTRICH'S NEST
242	ALUDHI III	2	(A)	OSTRICH'S NEST
243	ANGEKENAR	2	(A)	BEND IN THE RIVER
244	BEEMIM III	2	(A)	IN THE WATER
245	THEEMIN	3	(A)	IN THE WATER
246	BEEMIM II	2	(A)	IN THE WATER
247	BEEMIM I	2	(A)	IN THE WATER
248	KURSI AL JAUZAH I	2	(A)	CHAIR OF THE CENTRAL ONE
249	CASIOR	1	(L)	THE MORTAL ONE OF THE TWINS
250	POLLUX	1	(L)	THE IMMORTAL ONE OF THE TWINS

TABLE 1 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
251	AL-HENA	1	(A)	MARK ON THE CAMEL'S NECK
252	WASAT	1	(A)	THE MIDDLE
253	MEBSUYA	1	(A)	OUTSTRETCHED
254	MEKBUDA	1	(A)	CONTRACTED
255	PROPUS	1	(G)	POSITION IN FRONT OF CASTOR'S LEFT FOOT
256	CALX	2	(L)	THE HEEL
257	NUCATAI	2	(A)	CAMEL'S JUMP
258	AL ZIRR	2	(A)	THE BUTTON
259	AL NA'IR	1	(A)	THE BRIGHT ONE
260	DENEB ALNA'IR	2	(A)	END OF THE TAIL
261	DENEB HUF	2	(A)	THE TAIL OF THE FISH
262	RASALGETHI (A)	1	(A)	KNEELER'S HEAD
263	RASALGETHI (B)	1	(A)	KNEELER'S HEAD
264	KORNEP-HOROS	1	(G)	CLUB BEARER
265	NASAK SHAMIYA III	2	(A)	NORTHERN BOUNDARY
266	SARIN	3	(N)	?
267	MARSIC	2	(A)	ELBOW
268	MASYM	2	(A)	WRIST
269	CUJAM	2	(L)	CLUB OF HERCULES
270	UKDAH III	2	(A)	KNOT
271	ALPHARD	1	(A)	THE SOLITARY ONE
272	MINAZAL I	2	(A)	UNINHABITED SPOT
273	MINAZAL III	2	(A)	UNINHABITED SPOT
274	MINAZAL V	2	(A)	UNINHABITED SPOT
275	MINAZAL II	2	(A)	UNINHABITED SPOT
276	UKDAH IV	2	(A)	KNOT
277	AL SHARASIF I	2	(A)	THE RIBS
278	MINAZAL IV	2	(A)	UNINHABITED SPOT
279	MINKALS-NUJA	2	(A)	THE SNAKE'S NOSE
280	UKDAH I	2	(A)	KNOT
281	UKDAH II	2	(A)	KNOT
282	ZUBRAH	2	(A)	MANE OF THE LION
283	REGULUS	1	(L)	RULER OF THE HEAVENS
284	DENEBOLA	1	(A)	THE LION'S TAIL
285	ALGIESA (A)	1	(L)	THE LION'S MANE
286	ALGIEBA (B)	1	(L)	THE LION'S MANE
287	ZOSMA	1	(P)	THE GIRL
288	ALGENUBI	2	(A)	THE SOUTHERN
289	AD-4AFERA	1	(A)	THE EYEBROWS
290	AL JAB-4AH	2	(A)	THE FOREHEAD
291	CHERTAN	1	(A)	TWO RIBS
292	PINKARASAD	2	(A)	LION'S NOSE
293	ALTERF	1	(A)	THE END
294	RASALAS	1	(A)	THE LION'S HEAD TOWARD THE SOUTH
295	SUBRA	3	(N)	?
296	PRACIPUA	2	(L)	CHIEF
297	CRIMSON STAR	2	(I)	?
298	ARNEB	1	(A)	HARE
299	NIHAL	1	(A)	FIRST-SLAKING CAMELS
300	KURSI AL JABBAR	2	(A)	CHAIR OF THE GIANT

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
301	ARS-4 AL JAUZAH	2	(A)	THRONE OF THE CENTRAL ONE
302	ZUBENELGENUBI I	1	(A)	SOUTHERN CLAWS
303	ZUBENELGENUBI II	1	(A)	SOUTHERN CLAWS
304	ZUBENESCHAMALI	1	(A)	NORTHERN CLAWS
305	ZUBAN AL KRAVI	2	(A)	SOUTHERN CLAWS
306	ZUBEN AKRABI	3	(A)	SOUTHERN CLAWS
307	ZUBEN AKRABI	2	(A)	SCORPION'S CLAWS
308	DOLONES X	2	(L)	GOADS
309	STAUKAH	2	(A)	THORN
310	VEGA	1	(A)	DESERT
311	SHELIAR	1	(A)	TORTOISE
312	SULAFAT	1	(A)	TORTOISE
313	DOUBLE DOUBLE I (B)	2	(I)	
314	DOUBLE DOUBLE I (A)	2	(I)	
315	DOUBLE DOUBLE II	2	(I)	
316	DOUBLE DOUBLE I	2	(A)	
317	NASR ALWAKI I	2	(A)	EAGLE OF THE DESERT
318	NASR ALWAKI II	2	(A)	EAGLE OF THE DESERT
319	ALADFAH	2	(A)	THE TALONS
320	AT-FAH	2	(A)	TALONS
321	RASAL-HAGUE	1	(A)	HEAD OF THE SERPENT-CHARMER
322	CEBALRAI	1	(A)	HEART OF THE SHEPARD
323	MULIPHEM	2	(A)	OATH
324	YED PRIOR	1	(A)	FIRST IN THE HAND
325	YED POSTERIOR	1	(A)	BEHIND IN THE HAND
326	SABIK	2	(A)	DRIVER
327	GARAFSA	1	(A)	PRECEDING ONE
328	MARFIK	2	(P)	SERPENT-TAMER
329	AGSIA	1	(A)	ELBOW
330	MIZAN BATIL I	2	(C)	MAGICIAN
331	MIZAN BATIL III	2	(A)	FALSE SCALE-BEAM
332	MANICA	2	(A)	FALSE SCALE-BEAM
333	BETELSEUSE	2	(L)	PROTECTING GAUNTLET
334	RIGEL	1	(A)	ARMPIIT OF THE CENTRAL ONE
335	BELLATRIX	1	(A)	LEFT LEG OF THE CENTRAL ONE
336	MINTAKA	1	(L)	FEMALE WARRIOR
337	ALNILAM	1	(A)	THE BELT
338	ALNITAK	1	(A)	STRING OF PEARLS
339	SAIF AL JABBAR	1	(A)	THE GIRL
340	TRAPEZIUM	2	(A)	SWORD OF THE GIANT
341	MIZAN BATIL II	2	(A)	FALSE SCALE-BEAM
342	-ATYSA	2	(A)	FALSE SCALE-BEAM
343	SAIPH	3	(N)	?
344	MEISSA	1	(A)	THE SWORD
345	AL KUMM I	1	(A)	THE PROUDLY MARCHING ONE
346	AL KUMM II	2	(A)	THE SLEEVE OF THE GARMENT
347	AL TAJ IV	2	(A)	THE SLEEVE OF THE GARMENT
348	AL TAJ I	2	(P)	THE CROWN
349	TABIT	2	(P)	THE CROWN
350	AL TAJ II	3	(A)	THE ENDLER
		2	(P)	THE CROWN

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
351	AL TAJ III	2	(P)	THE CROWN
352	AL TAJ V	2	(P)	THE CROWN
353	THABIT	2	(A)	THE ENCOURER
354	HEKA	2	(A)	WHITE SPOT
355	HKA	2	(A)	WHITE SPOT
356	PEACOCK	1	(I)	SADDLE
357	MARKAB	1	(A)	UPPER PART OF THE ARM
358	SCEAT	1	(A)	THE SIDE
359	ALGENIB	1	(A)	THE NOSE
360	ENIF	1	(A)	THE LUCKY STAR OF THE HERO
361	OMAM	1	(A)	FORTUNATE RAIN
362	MATAR	1	(A)	TWO BEASTS
363	BIHAM	1	(A)	GOOD LUCK OF THE CAMEL
364	SADALNAZI	2	(A)	GOOD LUCK OF THE EXCELLENT ONE
365	SADALBARI	1	(A)	HORSE'S MOUTH
366	FUM AL FARAS	2	(A)	THE FORTUNATE STARS
367	SUDDALNUJUM	2	(A)	FORTUNATE RAIN
368	SADALMATAR	2	(A)	LEATHERN BUCKET
369	SALM	2	(A)	THE BUCKET-ROPE
370	ALKARAB	2	(A)	THE ELBOW
371	MISAM AL T-HURAYYA II	2	(A)	THE DEMON
372	MIRFAK	1	(A)	SPACE BETWEEN THE SHOULDERS
373	ALGOL	1	(A)	THE ELBOW
374	ATIK	1	(A)	THE DEMON
375	MIRAM	3	(A)	WRAIST
376	MISAM	3	(A)	WRAIST
377	MENKIS	1	(A)	SHOULDER OF THE PLEIADES
378	ALAIK	2	(A)	SPACE BETWEEN THE SHOULDERS
379	GORGONEA SECUNDA	2	(L)	SECOND STAR IN THE GORGON'S HEAD
380	GORGONEA TERTIA	2	(L)	THIRD STAR IN THE GORGON'S HEAD
381	MISAM AL T-HURAYYA I	2	(A)	WRAIST OF THE PLEIADES
382	GORGONEA QUARTA	2	(L)	FOURTH STAR IN THE GORGON'S HEAD
383	ANKAA	1	(N)	?
384	ALRIAL III	2	(A)	THE YOUNG OSTRICHES
385	ALRIAL V	2	(A)	THE YOUNG OSTRICHES
386	ALRIAL I	2	(A)	THE YOUNG OSTRICHES
387	ALRIAL II	2	(A)	THE YOUNG OSTRICHES
388	ALRIAL IV	2	(A)	THE YOUNG OSTRICHES
389	KAPTEYN'S STAR	2	(I)	THE CORD
390	ALRESCHA	1	(A)	FISH'S MOUTH
391	FUM AL SAMAKA-I	2	(A)	CORD
392	KUTON I	2	(P)	CORD
393	KUTON II	2	(P)	CORD
394	KUTON III	2	(P)	CORD
395	TORCULAR	2	(L)	THREAD
396	FCMALHAUT	1	(A)	FISH'S MOUTH
397	FUM AL HUT I	2	(A)	FISH'S MOUTH
398	FUM AL HUT II	2	(A)	FISH'S MOUTH
399	MERKEB (A)	3	(A)	SADDLE
400	MERKEB (B)	1	(A)	SADDLE

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
401	NAOS	2	(A)	SHIP
402	AZMIDISKE	3	(G)	ORNAMENTAL APLUSTRE
403	SHAM	3	(N)	?
404	TEREBELLUM III	2	(L)	?
405	TEREBELLUM II	2	(L)	?
406	TEREBELLUM IV	2	(L)	?
407	RUKBAT	1	(A)	ARCHER'S KNEE
408	ARKAB PRIOR	1	(A)	TENDON OF A FOOT
409	ARKAB POSTERIOR	1	(A)	TENDON OF A FOOT
410	ALNASL	1	(A)	THE POINT
411	KAUS MEDIA	1	(L)	THE MIDDLE OF THE BOW
412	KAUS AUSTRALIS	1	(L)	SOUTHERN PART OF THE BOW
413	ASCELLA	1	(L)	THE ARMPIT
414	NAMALWARID	2	(A)	THE LEAVING OSTRICHES
415	KAUS BOREALIS	1	(L)	NORTHERN PART OF THE BOW
416	ALNAM	2	(A)	THE OSTRICHES
417	AIN AL RAMI I	2	(A)	THE ARCHER'S EYE
418	AIN AL RAMI II	2	(A)	THE ARCHER'S EYE
419	AL BALDAH	2	(A)	THE CITY
420	NUNKI	1	(E)	STAR OF THE PROCLAMATION OF THE SEA
421	NAMALSADIRAH II	2	(A)	THE RETURNING OSTRICHES
422	NAMALSADIRAH I	2	(A)	THE RETURNING OSTRICHES
423	NAMALSADIRAH III	2	(A)	THE RETURNING OSTRICHES
424	NAMALSADIRAH IV	2	(A)	THE RETURNING OSTRICHES
425	AL KILADAH	2	(A)	THE NECKLACE
426	TEREBELLUM I	2	(L)	?
427	ANTARES	1	(G)	SIMILAR TO MARS
428	GRAFFIAS (AB)	1	(G)	CRAB
429	GRAFFIAS (C)	1	(G)	CRAB
430	USCUBBA	1	(A)	THE FOREHEAD
431	SARGAS	2	(E)	SMITTER?
432	GIRTAB	2	(E)	STINGER
433	VANANT	2	(P)	STINGER
434	MULA	2	(D)	THE ROOT
435	SHAULA	1	(A)	THE STING
436	TALI AL SHAULA I	2	(A)	THAT WHICH FOLLOWS THE STING
437	TALI AL SHAULA II	2	(A)	THAT WHICH FOLLOWS THE STING
438	JABBAH (B)	2	(A)	THE FOREHEAD
439	JABBAH (A)	2	(A)	THE FOREHEAD
440	GRASSIAS (A)	2	(G)	THE FOREHEAD
441	GRASSIAS (B)	2	(G)	CRAB
442	NUR	2	(G)	CRAB
443	ICLIL	2	(P)	BRIGHT
444	ALNIYAT I	2	(A)	CROWN OF THE FOREHEAD
445	ALNIYAT II	2	(A)	OUTWORKS OF THE HEART
446	LESAT	2	(A)	OUTWORKS OF THE HEART
447	JABHAT ACRABI I	1	(A)	THE STING
448	JABHAT ACRABI II	2	(A)	THE FOREHEAD OF THE SCORPION
449	UNUKAL-HAI	2	(A)	THE FOREHEAD OF THE SCORPION
450	NASAK SHAMIYA I	1	(A)	THE NECK OF THE SNAKE
		2	(A)	NORTHERN BOUNDARY

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
451	NASAK S-HAMIYA II	2	(A)	NORTHERN BOUNDARY
452	NASAK YAMANI I (B)	2	(A)	SOUTHERN BOUNDARY
453	NASAK YAMANI I (A)	2	(A)	SOUTHERN BOUNDARY
454	NASAK YAMANI II	2	(A)	SOUTHERN BOUNDARY
455	ALYA (A)	1	(A)	THE SNAKE
456	ALYA (B)	1	(A)	THE SNAKE
457	CALAENO	1	(L)	ONE OF THE SISTERS (PLEIADES)
458	ELECTRA	1	(L)	ONE OF THE SISTERS (PLEIADES)
459	MAIA	1	(L)	ONE OF THE SISTERS (PLEIADES)
460	STEROPE I	1	(L)	ONE OF THE SISTERS (PLEIADES)
461	STEROPE II	2	(L)	ONE OF THE SISTERS (PLEIADES)
462	MEROPE	1	(L)	ONE OF THE SISTERS (PLEIADES)
463	PLEIONE	1	(L)	ONE OF THE SISTERS (PLEIADES)
464	ATLAS	1	(L)	MOTHER OF THE SISTERS (PLEIADES)
465	TAYGETA	1	(L)	FATHER OF THE SISTERS (PLEIADES)
466	ALDEBARAN	1	(L)	ONE OF THE SISTERS (PLEIADES)
467	ELNATH	1	(A)	THE FOLLOWER
468	HYADUM I	1	(A)	THE BUTTING ONE
469	HYADUM II	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
470	OCULUS BOREUS	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
471	ALCYONE	1	(L)	NORTHERN EYE
472	HYADUM III	2	(L)	ONE OF THE SISTERS (PLEIADES)
473	HYADUM IV	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
474	ALKALBAIN III	2	(A)	TWO DOGS
475	ALKALBAIN IV	2	(A)	TWO DOGS
476	ALKALBAIN V	2	(A)	TWO DOGS
477	ALKALBAIN I	2	(A)	TWO DOGS
478	ALKALBAIN II	2	(A)	TWO DOGS
479	CAPUT TRIANGULI	2	(L)	END OF THE TRIANGLE
480	MIZAN	2	(A)	SCALE-BEAM
481	ATRIA	2	(D)	A SAGE
482	FLYING STAR	2	(I)	
483	ALT-HIBA I	2	(A)	THE GAZELLE
484	ALT-HIBA VII	2	(A)	THE GAZELLE
485	ALHAUD III	2	(A)	THE POND
486	ALHAUD I	2	(A)	THE POND
487	ALCOR	1	(A)	FAINT ONE
488	ALHAUD IV	2	(A)	THE POND
489	DU3-HE	1	(A)	THE BEAR
490	MERAK	1	(A)	THE LOIN
491	PHICCOA	1	(A)	THE T-HIGH
492	MEGREZ	1	(A)	THE ROOT OF THE TAIL
493	ALIOTH	1	(A)	FAT TAIL OF THE EASTERN SHEEP
494	MIZAR (A)	1	(A)	GIROLE
495	MIZAR (B)	1	(A)	GIROLE
496	ALKAID	1	(A)	CHIEF OF THE MOURNERS
497	ALHAUD V	1	(A)	THE POND
498	TALITHA	1	(A)	THIRD LEAP
499	KAFZATANIA	2	(A)	THIRD LEAP
500	TANIA BOREALIS	1	(A)	NORTHERN SECOND (LEAP)

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
501	TANIA AUSTRALIS	1	(A)	SOUTHERN SECOND (LEAP)
502	ALULA BOREALIS	1	(A)	NORTHERN FIRST (LEAP)
503	ALULA AUSTRALIS	1	(A)	SOUTHERN FIRST (LEAP)
504	MUSCIDA	1	(N)	MUZZLE OF AN ANIMAL
505	AL-HIBA II	2	(A)	THE GAZELLE
506	AL-HIBA III	2	(A)	THE GAZELLE
507	AL-HIBA IV	2	(A)	THE GAZELLE
508	AL-HIBA V	2	(A)	THE GAZELLE
509	AL-HIBA VI	2	(A)	THE GAZELLE
510	AL-HAUD II	2	(A)	THE POND
511	AL-HAUD VI	2	(A)	THE POND
512	AL-HAUD VII	2	(A)	THE POND
513	ALKAFZA I	2	(A)	THE LEAP
514	POLARIS	1	(L)	POLE (STAR)
515	KOCHAB	1	(A)	STAR
516	PERKAD MINOR	1	(A)	TWO CALVES
517	PERKAD MAJOR	1	(A)	TWO CALVES
518	VILOUN	2	(T)	STAR PAR EXCELLENCE
519	CIRCITORES	2	(L)	CIRCLES
520	AKFA FARKADAIN	2	(A)	DIM ONE OF THE TWO CALVES
521	ANWA FARKADAIN	2	(A)	BRIGHT ONE OF THE TWO CALVES
522	REGOR	1	(N)	?
523	MARKED	2	(A)	SADDLE
524	SU-HAIL	1	(A)	THE PLAIN
525	SPICA	1	(L)	EAR OF WHEAT
526	ZAVIJAVA	1	(A)	ANGLE OR CORNER
527	PORRIMA	1	(L)	ANCIENT GODDESS OF PROPHECY
528	MINELAUVA	1	(A)	THE BARKER
529	VINDENIATRIX	2	(L)	GRAPE-SATHER
530	HEZE	3	(N)	?
531	ZANIA I	1	(A)	ANGLE OR CORNER
532	SYRMA	1	(G)	TRAIN OF THE VIRGIN'S ROBE
533	ALGAFAR I	2	(A)	THE TUFT IN THE LION'S MANE
534	KAMBALIA	2	(C)	CROOKED CLAW
535	RIGILAWA	2	(A)	FOOT OF THE BARKER
536	ALGAFAR II	2	(A)	THE TUFT IN THE LION'S MANE
537	ANSER	2	(N)	?